AMES ON FORGERY

Yours truly, D. T. Ames.

AMES ON FORGERY

ITS DETECTION AND ILLUSTRATION

WITH

NUMEROUS CAUSES CÉLÈBRES

(ILLUSTRATED)

BY

DANIEL T. AMES

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in Courts of Justice.

SAN FRANCISCO

DANIEL T. AMES

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Over fifty noted cases explained and illustrated, making more than seventy pages of engravings.

Many of the cases are among the most celebrated in the world.

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PREFACE.

One science only will one genius fit,
So wide is art, so narrow human wit.—POPE.

THIS is the age of the Specialist. The leader and recognized authority in any line of human endeavor is, inevitably, one whose concentrated thought and observation have enabled him to hew his way to the light of Truth through darkening walls that to the mutable many are impenetrable, inscrutable.

Through untold ages the casual millions moved and had their being on the same earth that we occupy to-day. The sun shone, stars twinkled, lightnings flashed, flowers bloomed, as they do with us. The same potential wonders of the Universe were omnipresent then as now. The same great primal forces of Nature existed, but there were none to read her portentous story,— no eye keen enough to penetrate the great alembic of her mysterious workings,— no ear attuned to the delicate measure of her whispered world-secrets,— no mind, sensitized by the sweat of exhaustive scientific research, to read her riddles for the glory of man and his immeasurable benefit.

The discovery of a New World awaited through slumbering ages the thoughtful observations of a Columbus. Not until subjected to the profound scrutiny of a Copernicus were the old revolving heavens transformed into a new astronomy. The power of steam, crying in vain to all the myriads who had peopled the earth since creation, whispered

into the attentive ear of Watt the secret that revolutionized mechanical industry. So electricity remained a thing of idle wonder, until the keen-observing Morse harnessed it as the time- and space-annihilating thought-messenger of man. To Linnæus the leaves and flowers were a perfect calendar, clock, and compass. Dropped from a balloon on any part of the earth, he could tell the exact location, the season, the precise hour of day or night. With a few dry bones to guide his sharpened mind, Cuvier was able to rebuild the body of a monster whose race had died before human records began. A slight aberration of planetary motion conveyed to the trained eye of Herschel intelligence of the existence of another member of our solar system in still remoter space. As hounds by means of a highly specialized physical sense track the unseen quarry to its lair, so was acutely specialized intellect able to achieve the unthinkable triumph of tracking this errant orb over its course of thousands of millions of miles, of measuring it and weighing it before human eyes had ever seen it!

And so through the whole catalogue of human achievement, it is the Specialist who has seen clearly where the multitude saw nothing, or saw but dimly. To him truly nature has been an open book. From the starry heavens he has unraveled deep mysteries of the spheres. From the rocks of the earth he has garnered its physical history. From the crumbling fossil he has learned the fascinating story of life on the earth, from protoplasmic cell to man. The gleanings of human history have taught him statesmanship. And thus man has toiled his way upward from savagery to enlightenment. By constant and thoughtful exercise, the mind and hand have ever taken on new cun-

ning and facility, whose fruitage becomes richer and more abundant with the accumulating ages. Witness the many wonderful discoveries and inventions that distinguish the nineteenth century beyond all that have preceded it.

As in those large matters that touch life at its roots and reach out into the infinite, so in the ordinary affairs of daily life we are constantly in closest touch with the Specialist. He prepares our food, makes our clothes, constructs our houses. He teaches us at school, preaches to us, doctors us when sick. He frames our laws and administers them.

It is as a Specialist in my chosen line of work that I have prepared this volume. I have not sought to make it profoundly scientific or punctiliously literary, but rather to present in a plain manner some facts drawn from forty years of continuous work in connection with the chirographic art, as teacher, author, editor, publisher, and professional examiner and witness. As my experience in the latter capacity covers over twelve hundred cases in which the genuineness of handwriting has been contested in courts of justice, not only in the American metropolis, but throughout the United States and Canada, also in England and France, the hope is indulged that the volume may be found of genuine use to handwriting investigators in promoting the ends of justice.

D. T. A.

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San Francisco, Cal.

INTRODUCTION.

An artist long connected with one of the largest bank-note companies in America remarked to the writer that he could take a finished engraving—say, an elaborate bond or bank-note made by his company—and identify, infallibly, the work of every man who had a hand in its production, even though there might be a large number of different artists represented. More than that, he stated that if a score of the men with whom he had worked should each draw a straight line an inch long, under normal conditions, he could pick out the author of each particular line. This seems at first blush an extravagant statement, but probably it is true. It simply means that every man differs from every other man as to method, nervous force, brain propulsion, etc.; and that while these bits of line to the ordinary observer would be exact duplicates one of another, to the eye of one skilled in that business, and by long supervision familiar with the character and style of work turned out by various subordinates, one line would differ from another line in appearance even as one man differs from another.

Of course, the establishing of identity on so slight a foundation presupposes normal conditions and circumstances of execution. If those twenty men when they were making the lines knew that they would be subjected to scrutiny with a view to establishing identity, it is highly probable that each man could change his method sufficiently

to make such identification impossible. One man's habit might be to make a line with a quick free-hand stroke. Another might produce his by the aid of a ruler. It would require no great expert skill to distinguish a fairly radical difference between two lines executed in such different manners. If A, whose custom it is to work free-hand, should employ a ruler for the purpose of deception and modify the force or rapidity of his habitual stroke, he might very well be able to bury his own identity; but even then the line thus abnormally made would be sufficiently different from a line normally made by B (whose natural habit, we will suppose, agrees with the assumed habit of A) to sufficiently differentiate the products.

In a word, the trained expert eye, even on so slight a thing as a simple straight line, will detect certain peculiarities of motion, of force, of pressure, of tool-mark, etc., that in normal circumstances the result will stand for its author just as his photograph stands for him. Now, this being undoubtedly true within certain limitations, how more than incontestable must be the proposition to any rational man that if, instead of a simple undeviating pen-stroke, lines that run to curves and angles and slants, and shades and loops and ticks, and enter into all sorts of combinations, such as any specimen of handwriting must, however simple, bear inherent evidences of authorship that yield their secrets to the expert examiner as the hieroglyphics on an Egyptian monument do to a properly educated antiquarian.

That is the beginning and the end of expertism in handwriting.

Some writer has well said that, "Every one should know something about everything, and everything about some-

thing." One who has been sufficiently observing, industrious, and acute of understanding to acquire a practical knowledge of things in general, and an exhaustive knowledge of some one thing in particular, is the ideal expert upon that particular thing. Who will presume that the opinion of such a man on his specialty is to be offset or disparaged by the opinion of another whose acquaintance with that particular thing is only general or casual—who has considered it as only one of things in general?

The expert, then, is the man who knows.

It is important to consider briefly the lines of study and experience calculated to confer the highest order of skill upon a handwriting expert.

First—The study and practice of handwriting as a teacher in the constant observation, criticism, and suggestion to learners afforded by such an occupation.

Second—The preparation of publications devoted to writing and other phases of penmanship involving the careful preparation of models for the engraver and the critical scrutiny of plate reproductions of such models.

Third—The preparation of critical and technical, literary and scientific instructions for the student of penmanship.

Fourth—The accumulated experience arising from previous examinations of disputed writing and the multiplied precedents of court opinions, rulings, and the verdicts of juries in cases on which the expert has been previously employed.

Fifth—The occupation of an engraver or lithographer where the frequent reproduction of handwriting, and especially autographs, is involved. The careful drawing of his models upon the plates prior to engraving and the

critical comparison between models and reproductions lead to the drawing of nice distinctions of form and the detection of delicate personal or individual characteristics.

Sixth—The constant professional observation of handwriting in any line of financial or commercial business tends to confer expert skill. It should be said here, however, that the average bank cashier or teller bases his opinions and his identifications generally upon the pictorial effect, without recourse to those minuter and more delicate points upon which the skilled expert rightly places the greatest reliance. Such testimony can not be compared for accuracy or value with that of the scientific investigator of handwriting. It follows, then, that one who is endowed with more than ordinary acuteness of observation, and has had an experience so varied and extensive as to cover most of these lines, is likely to be best fitted for critical and reliable expert work.

Opinions of eminent judges have differed widely respecting the reliance to be placed upon testimony founded upon expert comparisons of handwriting; but it should be remembered that those opinions have been no more varied than has been the character and qualifications of the experts by whose testimony they have been called forth.

It is too true that very frequently persons have been allowed to give testimony as experts who were utterly without experience in any calling that tends to bestow the proper qualifications for giving expert testimony. Such witnesses have defamed their alleged profession. So some judges have failed to adorn the bench, and have been impeached; and it is not uncommon that lawyers have been disbarred on account of malpractice, and many more

should have been from incompetency. In this work are presented a large number of cases, most of them illustrated, out of many hundreds which have come within the Author's experience where important causes have hinged upon handwriting and have been determined chiefly by facts brought to light through the research of skilled experts. By illustrations much of the methods employed by the expert to discover and present the evidence of forgery in a clear and comprehensive manner to court and jury may be observed, and their true value estimated. In most of these cases the evidence was so conclusive as to admit of no reasonable doubt.

The manner that personality enters originally into handwriting, and becomes an unconscious and dominant habit which establishes an identity to every handwriting as absolutely as does physiognomy to the person, will be fully explained and illustrated.

CHAPTER I.

PERSONALITY IN HANDWRITING — WHAT CONSTITUTES PERSONALITY AND HOW IT COMES INTO WRITING SO AS TO DISTINGUISH THE WRITING OF ONE PERSON FROM THAT OF ANOTHER — NO TWO HANDWRITINGS CAN POSSIBLY BE IDENTICALLY THE SAME — HABIT OF WRITING — HOW FORMED AND HOW IT OPERATES TO DETECT AND ILLUSTRATE FORGED AND SPURIOUS WRITING — SCHOOL VS. ADULT-WRITING — NATIONS AS WELL AS INDIVIDUALS ARE DISTINGUISHED BY THEIR WRITING — ECCENTRIC PERSONS DEVELOP AN ECCENTRIC STYLE OF WRITING — EXAMPLES OF ECCENTRIC AND OTHER STYLES OF WRITING — SEX IN WRITING.

> Assuredly Nature would prompt every individual to have a distinct sort of writing, as she has given a peculiar countenance, voice, and manner.—DISRAELI.

COINCIDENT personality to such a degree as to lead to a mistaken identity of persons is very much more probable than that the handwriting of two individuals should so closely approximate each other as to be mistaken one for the other, especially when subjected to a careful analytical study and comparison by a capable expert.

The features that go to make up the human physiognomy are but few when compared with the various forms of the fifty-two letters of the alphabet, large and small, not to mention their equally various relations, proportions, shades, spacing, initials, terminals, crosses, dots, etc.

That all these various features when woven into the fabric of handwriting could be coincident throughout two habitual handwritings is absolutely impossible, the characteristic distinctions thus inevitably stamped upon one's

writing are beyond the powers of numbers to enumerate. The number of different positions in which the twenty-six letters of the alphabet alone may be placed is 4,032,914,-611,265,046,555,840,000, using the fifty-two letters (large and small), with their changed forms and other differences, as above stated; it will be obvious that the personalities of an habitual handwriting are quite beyond the power of enumeration to express.

In nothing else that a man does and leaves of record is his very personality so interwoven and manifest as in his handwriting. Being the joint product of the mind and hand it reflects at once taste, judgment, industry, and the mental quality generally, as well as the manual dexterity, of its author. Writing is first acquired by thoughtful study and careful practice, and chiefly, at present, from engraved copies as models, analytically taught. It is therefore formal, stiff, and impersonal in exact proportion to the learner's success in imitating his copy. Several learners practicing from the same models, under the instruction of a skillful teacher, will often acquire a school-hand so similar that were each pupil to write a line under the copy, one after the other, the entire writing would appear, to the casual observer, to be the work of one hand. But let these several learners enter upon the active duties of life, and practice their hands under the varying environments of their different employments, and at once a change is observed. First, the modifications are slight, then they become more and more pronounced, until ultimately each hand comes to be unconsciously evolutionized from the stiff, formal, analytic, and impersonal school-hand to a facile, natural expression of the writer's mental and physical peculiarities, and stands for his personality, as does his physiognomy, against all the other writers in the world. From long-continued practice these individualities, which are numberless and chiefly unnoted, come to constitute a fixed and unconscious writing habit implanted in the muscles of the fingers and arm, rendering

them a machine that automatically performs all the phenomena of writing almost as arbitrarily as the typewriting machine, well-nigh unaided by the mind, which is occupied by its own functions of supplying the thought which the machine records.

SCHOOL HAND.	HABITUAL HAND.
a b c d e f	a b c d e f
A B C D E	A B C D E
and he began	and he began
Habits grow	Habits grow
imperceptibly	imperceptibly
Philip Regan	Philip Regan

Thus it appears that what is designated as personality or habit in writing is the result of unconscious modifications of the original school-hand, not through any purpose of the mind or will, but directly from the unconscious force of personal peculiarities and environment conjointly operating through the mind and the muscles of the fingers, hand, and arm. It is therefore more a habit of muscle than of mind; hence its existence and character are mostly unknown to the writer, and cannot be so changed at the behest of the will as to destroy its identity.

ADULT WRITING.—Any adult writer has only to refer to his own handwriting to observe the fact that his present

writing differs as widely from that which he acquired at school as do his present features and personal appearance from those of his childhood. Every letter of the alphabet has changed in its form, shade, proportion, and in all its relations to other letters, when written in body writing, as well as the facility and grace with which it is executed,—and who can discover and enumerate all these changes? Yet each one constitutes a distinct personality of the writer's hand.

These facts constitute the fundamental basis of scientific examinations and comparisons of forged or disguised handwriting, and they may be formulated into three axioms.

First—No writer can know all the innumerable characteristics of his own handwriting.

Second—No one can observe and note all the habitual characteristics in the writing of another.

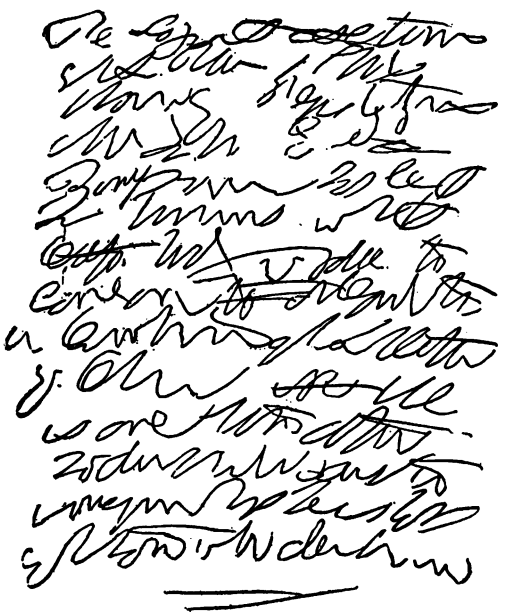
Third—Were one conscious of all his own personalities and able to perceive all those of another writer, the hand at the mere command of the will cannot be so controlled as to entirely avoid the one and reproduce perfectly all the others. Force of habit will constantly inject the personality of the writer, while the unnoted personality of the imitated writing will be constantly omitted.

When writing is in dispute and is submitted to an expert, he enters upon an exhaustive study and analysis to discover wherein these unconscious habits are absent and are substituted by others. In other words, he seeks to strip from the writing its garb of disguise as would a detective the robes of disguise from a person. The degree of certainty of an expert's conclusion must, of course, be proportionate with his skill to detect, and the skill of the perpetrator to conceal his identity; but, as a rule, conclusions thus reached by a really skilled and honest expert are seldom wrong, and they constitute the strongest kind of circumstantial evidence.

Obviously many causes conspire to stamp upon the

writing of different persons their own personality. One having short, thick fingers, the muscles of which, with those of the hand and arm, are hardened and stiffened by severe labor and are little exercised in writing, cannot possibly write like one having long, flexible fingers constantly exercised in writing.

Again, writing with the finger movement cannot produce the flowing, easy, and graceful style of one who calls the muscles of the wrist or fore-arm into use. The personal qualities, taste, judgment, disposition, and environment of the writer are also powerful elements in shaping his style. Much bad writing results from the effort of an untrained hand, striving to perform the impossible task of recording the thought of the highest-trained minds. A hand capable of writing well thirty words per minute endeavors to record the thoughts of a mind that can furnish two hundred words in the same time, and it often descends to pothooks and slurs, legible only from the context.



The preceding cut is presented as a specimen of such writing, which is from a portion of a letter received at the office of the writer in ordinary correspondence.

Probably no editorial writing has been more frequently the subject of comment than that of Horace Greeley, a specimen of which, here presented, happily illustrates our point; also, two other specimens, illustrative of highly personal writing, by Peter Cooper, the well-known inventor and philanthropist of New York, and William Cullen Bryant, one of America's greatest poets.

Of course, the more radical and conspicuous peculiarities become, the more obvious will be the individuality and identity of the writing. It will sometimes happen that adults having no very determined or dominant characteristics, and who have written but little, and that under circumstances not sharply controlling their actions, will retain much of the style they acquired at school. In such cases there will be many coincident types of letters, and perhaps of forms as between their writing and that of others having learned from practicing after the same copies and under the same instruction, so much so that a casual observer may be betrayed into a mistaken identity of writing, just as persons who bear a strong resemblance are often mistaken for each other.

There may be a superficial likeness, even a striking one, in writing as in persons, yet there can be no positive identity. What, in a general way, may appear to the casual observer to be the same, under the eye of those who are familiar from intimate acquaintance, or of an expert who is acute in discovering and judging of characteristic differences, there will be manifest points of difference so radical as to make the lack of identity positive and unmistakable. As an instance, it was alleged that two writings were by the same person, because in each there were several coincident types of letters. For example, the "e" was made in the form of the Greek letter "epsilon," but upon a critical

New-York Tribune.

New York. April 14 1869.

My dear Sir:

I like your idea of making "Packard's Monthly" a moral and intellectual directory to young persons of both sexes who honestly desire to achieve a genuine success in life and are willing to pay the inevitable price. I think you have already done good to thousands, and that the experience you have gained, the battles you have secured, will enable you be ~~more~~ fourth to do more. Having to find your future is not eminently practical and suggestive of industry and thrift. I remain,

Heartily yours,

Horace Greeley.

S. S. Packard Esq. 947 Broadway.

Newyork April 20th 1873

Mr Packard My dear Sir Allow me to introduce an old friend Mr Fitzwilliam Birdsall who desires to place his son under your charge for instruction in Book keeping — As his means are limited I hope you deal with him in the most liberal manner

Yours Truly

Peter Cooper

Roslyn, Long Island N.Y.
December 5th 1876.

Dear Sir.

Your Uncle, Elisphalet Packard, was quite right in designating my birth-place. As the tradition of my family goes, I was born in a house which then stood at the northwest corner of a road leading north of the burying ground on the hill, and directly opposite to the burying ground. The house was afterwards removed, and placed near that occupied then by Daniel Dawes. I suppose there is nothing left of it now

Yours very truly
W. C. Bryant

S. S. Packard Esq.

examination it was found that in the one instance the letter was made so that its upper portion was one-third the length of the letter, and was nearly a horizontal oval, while the point connecting the two parts pointed upwards at an angle of forty-five degrees, thus: *ℰ*; that in the other writing it was so divided that the upper portion was nearly two-thirds the length of the letter, which began with a hook, and the connecting point projected downward, thus: *ℰ*; so that while alike in type, they were, characteristically, very unlike.

Among all the fourteen hundred millions of people who inhabit the earth no two are identically the same. No more are any two handwritings. Although resemblances may be striking, a perfect likeness of any two things does not exist. "Alike as two peas" is a trite saying; yet when two peas are scrutinized under the lens of a microscope differences of detail multiply well-nigh to the infinite.

But it is urged against the identity of writing that the same person never writes twice exactly alike. This is true in the sense that a person's handwriting varies as to its precise detail, but in its general habitual characteristics it is the same, as several peas may vary in size, color, smoothness and outline, yet inevitably and unmistakably retain every characteristic that identifies them as peas and distinguishes them from pebbles or any other object of similar size and form.

"Like, but oh! how different!"

A fine or stub pen, haste or deliberation, good or bad health, sitting or standing, drunk or sober, may radically change the appearance and quality of writing, as may the condition of health or age change or impair the personal appearance of the writer; but it might as well be claimed that these abnormal circumstances make a new person as that they make a new handwriting. The pen in a palsied, drunken, or incensed hand may be erratic in its motion, but no more so than would be the motions of the feet and body

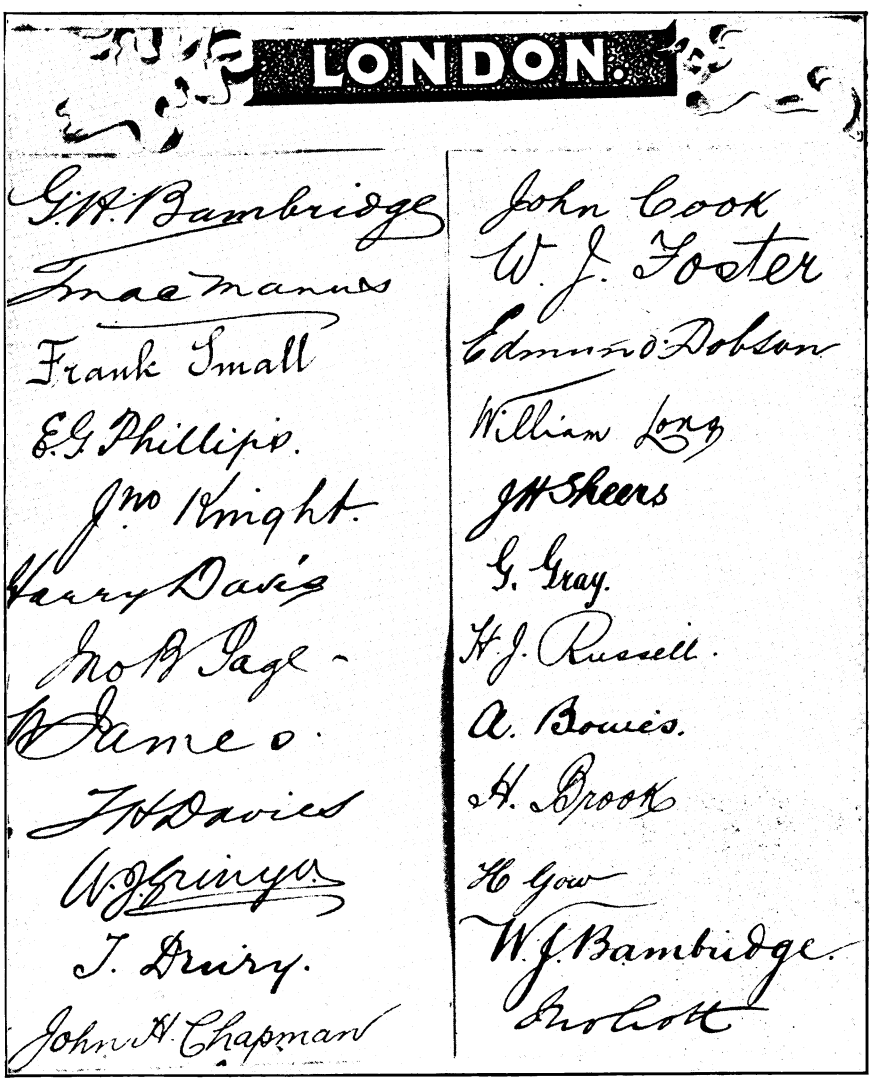
from a corresponding cause. Each inevitably strives to perform its normal and habitual functions, and approximates doing so exactly according to the degree of the impediment.

It is sometimes urged by teachers and the press, as an objection to the use of engraved copy-books in our public schools, that from the uniform and impersonal character of the copies there is danger that pupils will acquire a style of writing so nearly alike as to eliminate the ordinary personality by which the writing of one person is distinguished from that of another; and under such apprehension some teachers have even sought to teach what they denominated "personal writing." True personality in writing can neither be taught nor materially hindered by style of copy or effort of the teacher. If a teacher reflect but for a moment he must see that any peculiarity present in a copy could be only a copied form in the writing of the imitator. As we have shown, personality is not in the writing of the learner, more than is the matured face and form of the adult in that of the child. Each comes by evolution through time and circumstances, and teachers and others who are apprehensive lest all or many people should come to write alike, from any cause, might be equally apprehensive lest the same childish forms and features which they see in the schoolroom should remain unchanged through advancing years. The teacher need be concerned only in assisting the learner to acquire all the essentials of a good handwriting — namely, good, legible forms, together with ease and grace of execution.

Nor is the distinguishing personality of writing limited to individuals. The writing of the world is marked and varied in its idiosyncrasies as are the physiognomies and other peculiar race characteristics.

Some years since I had occasion to prepare an elaborate testimonial to John W. Mackey from the employees of the Commercial Cable Company, and, when completed, pages

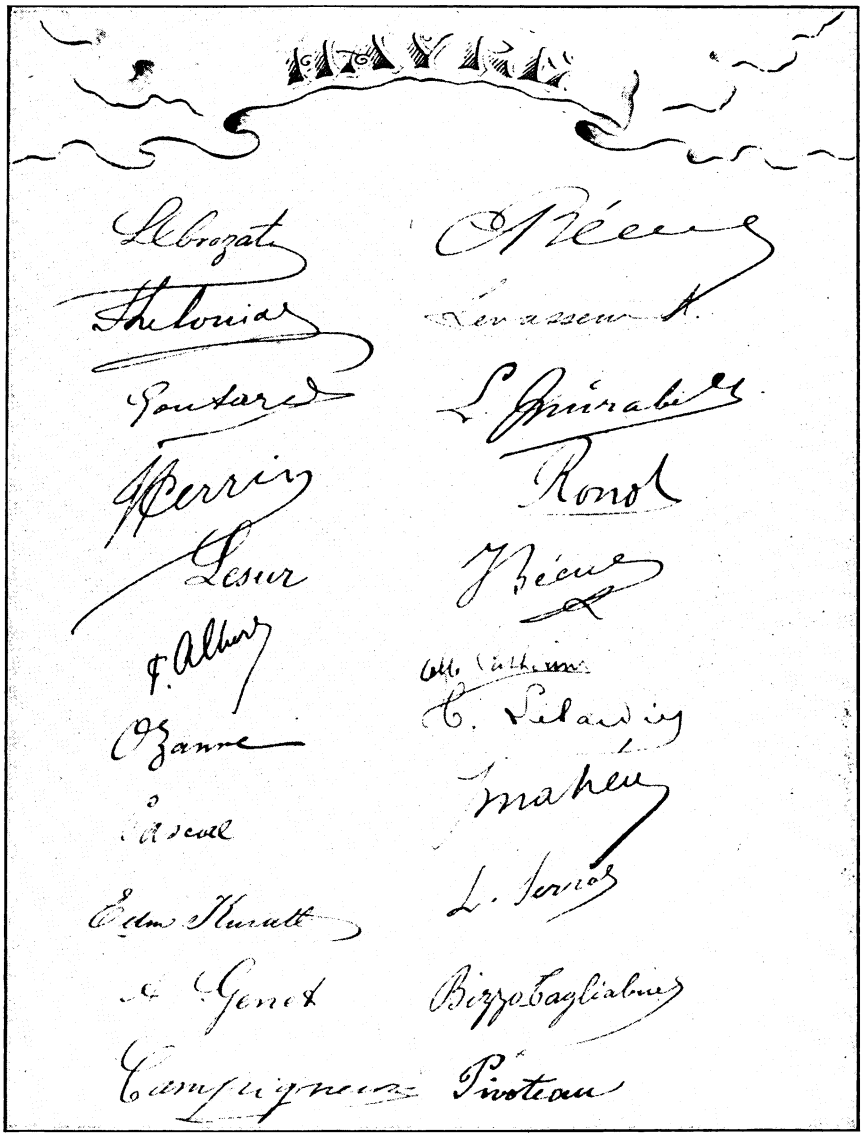
were sent to the leading offices, for the signatures of the employees, three of which pages we have reproduced and here present as typical of the writing of three nationalities—English, American, and French. They may not be fairly representative, as it is quite probable that there is some intermingling of nationalities on these pages.


LONDON.

G. W. Bambridge
Isaac Manuel
Frank Small
E. G. Phillips.
Jno Knight.
Harry Davis
Jno B Page
Jameo.
J. W. Davies
W. J. Grinyer
J. Drury.
John H. Chapman
John Cook
W. J. Foster
Edmund Dobson
William Long
J. H. Shears
G. Gray.
H. J. Russell.
A. Bowie.
H. Brook
H. Gow
W. J. Bambridge
Knolott

[illegible]

W. H. Anthony	A. Foden
John W Lawson	Frederick W. Paget
A. Barsley	Geo. Self
D Morrison	Thos Hambling
R.G. McLachlan	A.G. Winterbotham
J. Graham	S. S. Dickenson
John. B. Hemming	Geo W Colley
Thos Sullivan	
J. Browne	J. D. Gaines



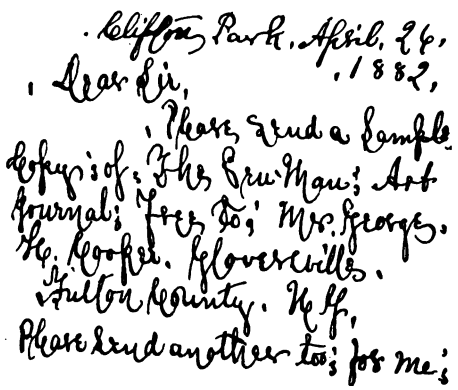
The extensive and close observer distinguishes between nationalities by their writing as he does by speech, physiognomy, or any other race peculiarity. Even when one has learned to write another than his native language, the race-distinction remains to a perceptible degree. The writing of a German, Frenchman, or other foreigner who has learned to speak and write the English language will usually retain an idiocratic style as perceptible to the expert as the accent in his speech; and the one can be overcome or avoided no more easily than the other.

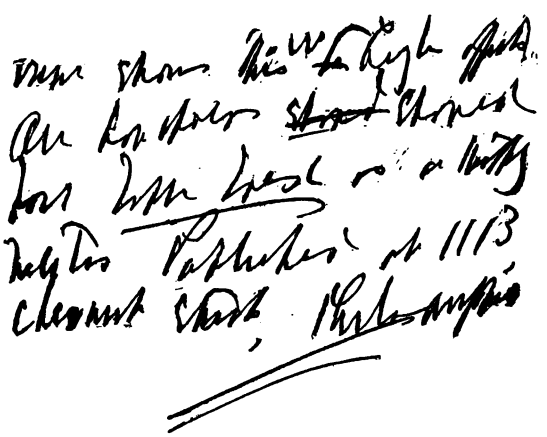
Sometimes, too, there is a strong resemblance between the writing as there is between the persons and characteristics of different members of the same family. This resemblance very naturally results from coincident instructions, example, and hereditary family traits. These family resemblances are occasionally so great as to lead to mistaken identity of both person and writing, by persons of limited acquaintance, but not of either by intimate relatives or associates. In neither case can we conceive a complete and perfect identity to be possible.

The skilled and observing accountant or correspondent will recognize the various handwritings of all associated in his house, as well as of its frequent correspondents, as readily and unerringly as he does their persons; nor can the identity of their handwriting be more effectively concealed by disguise than can the persons of the writers.

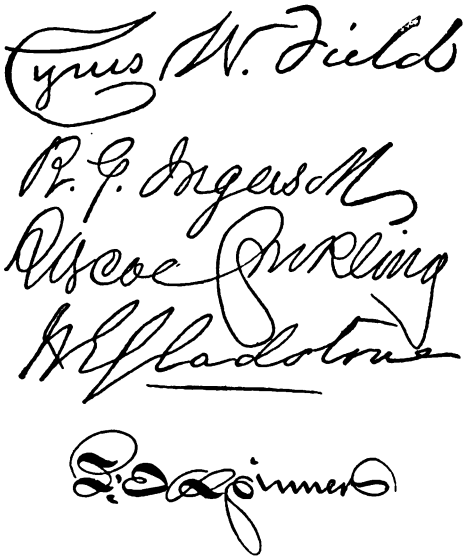
It is also an observable fact that original and highly eccentric persons usually develop an equally original and eccentric handwriting. By eccentric writing we do not mean the well-nigh unintelligible hieroglyphics of such newspaper writers as Greeley and others, whose essentially bad writing has resulted more from the attempt to force an unskilled hand to perform the utterly impossible task of keeping pace with their rushing torrent of thoughts than from any real eccentricity of character. We refer to those whimsical, nondescript styles in which the writers utterly

ignore all system or example, and seem to defy alike all rules of art and nature by deliberately introducing forms and combinations which may be anything or nothing according to their position and the context, and which constitute as a whole a "hand" as grotesque and inimitable as the character of its author, and one which seems to say to the beholder, "This is my style,"—and very properly, for certainly it will enter into the brain of no other person to conceive of anything like it. We here present a few specimens of such writing, together with *fac-simile* autographs of those persons who have been publicly known, which will serve as illustrative examples:—


Clifton Park, April 24, 1882,
Dear Sir,
Please send a sample copy of The Phrenomagnetic Art Journal free to Mr. George H. Cooper, Gloversville, Fulton County, N.Y.
Please send another too for me;



"A prudent man," says a witty Frenchman, "is like a pin: his head prevents him from going too far."

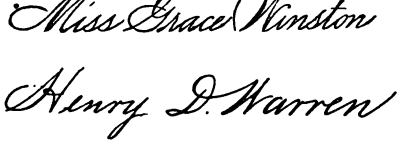


These autographs are certainly *sui generis*, and in their entire originality and defiance of prescribed rules of chirography are typical of their respective authors, who, in their careers, have been equally original and irrespective of the beaten ways of their grandfathers.

As another example of the eccentric autograph — certainly its writer has departed widely from the ways of her grandmother — we present the following: —

"It is," in the words of another writer, "a fine combination of masculine vigor and feminine caprice." Authors of such writing and autographs as above need have no fear of a mistaken identity, or of any considerable number of accidental coincidences between their own and any other "sign manual."

Below are specimens of writing and autographs constructed more in accordance with the prevailing standards of form, and not characterized by conspicuous personalities: —



Such writing will occur in cases where persons of nearly equal skill have learned to write by practicing from the same copies, and whose hands have not subsequently changed by practice under widely different circumstances, or been dominated by strong peculiar personal traits. In such writing there will be many accidental coincidences of form and combination between that of different writers, and mistaken identity is liable except by those to whom the handwriting is thoroughly familiar, or from a somewhat expert examination.

It is the peculiar eccentricities of habit in writing, as it is in the figure, dress, etc., in persons, which readily and certainly determine their identity.

Persons of the same color, of medium stature, regular features, clothed in the prevailing fashion, present much the same appearance to the eye of a stranger, and on a slight acquaintance may easily be mistaken one for another. But persons highly exceptional in any of these respects will be recognized at sight. There can be no mistaking a black for a white man, a giant for a dwarf, or a cripple on crutches for a man on sound legs. Persons are never so

identical in form, features, dress, habit, etc., as to be mistaken by intimate acquaintances, and usually where a strong personal resemblance is apparent to strangers, it ceases to be so upon a greater familiarity. So, however close the resemblance between the writing of different persons may appear to the unfamiliar observer, the identity of each will not only be apparent at once to its author and others to whom it is familiar, but they will usually fail even to note a resemblance.

Though writing be changed in its general appearance, as it easily may be by altering its slope or size, or by using a widely different pen, yet the unconscious habit of the writer will remain and be perceptible in all the details of the writing; and such an effort to disguise one's writing could be scarcely more successful than would be an effort to disguise the person by a change of dress. In either case a close inspection reveals the true identity.

Although it be a fact that writing ultimately becomes the automatic production of the hand, it is equally a fact that it does so as the pupil and agent of the mind; and in the molding process the peculiar qualities of its tutor and master enter unconsciously into its composition, and it becomes, as it were, a mirror of its creator — the mind.

The truth of this assertion we will endeavor to illustrate by presenting facsimile autographs of a few persons whose mental characteristics are a matter of historical record, and will or may be known to all our readers. It is probable that the writing of no two Americans has more frequently been the subject of comment than that of Rufus Choate and John Hancock, whose portraits and autographs we present on the next page.

The contrasts are equally striking, as between the personal characteristics, physiognomies, or chirography of these gentlemen, Mr. Choate enjoying the reputation of being among the worst, as Hancock was among the best, writers of their times.

Rufus Choate John Hancock

The hard, wiry, nervous, and intensely marked features of Choate, bespeak the brilliant though eccentric orator, jurist, and statesman, and are in full accord with his autograph.

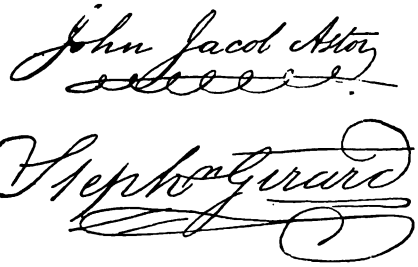
The portrait of Hancock, in its bold, open, and frank expression, is typical of what the biographer describes as "a man of strong common sense and great decision of character, polished manners, easy address, affable, liberal, and charitable." Could portrait, character, and autograph be in better accord?

As the companion autograph of Hancock's, we present that of John Adams --

John Adams

who was also a compatriot of the stirring times of the Revolution, and a colleague in the Colonial Congress. Both were among the most earnest, bold, and fearless advocates of the Declaration of Independence. John Adams, in one of his fiery speeches in its favor, closed by fairly shouting "Independence forever!" and Hancock, after subscribing his autograph to the Declaration, which act might have become his death-warrant, remarked, "The British Ministry will not need their specs to see that." The bold, strong, determined character of these men stands out in their autographs.

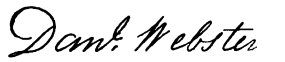
In marked contrast to these, are the autographs of two of our great merchants and financiers:—



Here we have men of affairs who have a care for details which enter as minutely and fully into their autographs as into their business. Between these autographs and the following are contrasts as striking as were the character and missions in their authors.

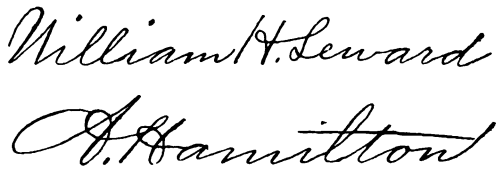
The latter are of a class of what might be termed parliamentary autographs. Their authors indulge in none of the redundances of fantastic quirks and eccentricities so common to most classes of writers, the autographs seeming to possess a conscious dignity, which, like the greatness of their authors, is most complete without decoration.

The autograph of Clay, in its concise, frank, open, and almost laconic style, most faithfully reflects the character of the great statesman, whose life was without equivocation, disguise, or reproach, and concerning whose opinions and purposes his countrymen were never in doubt.



The autograph of his great contemporary, Webster, too, in its simplicity and dignity of style, is appropriate to the terse, vigorous, and unaffected style of America's greatest political orator and statesman.

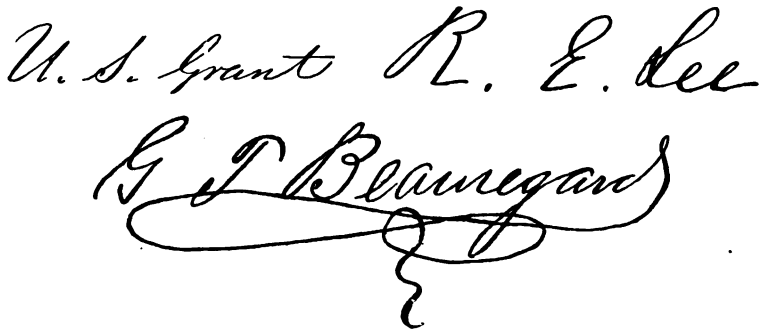
The autograph of Lincoln is clear, bold, and utterly without affectation; while its quaint, honest dignity renders it thoroughly appropriate as the "sign manual" of "Honest Abe." In a contrast as marked as were the peculiar characteristics and attainments of the two men stands the delicately molded autograph of his great "War Premier" Seward. In its delicate construction of fine hair-lines, clear-cut shades, and almost microscopical proportions, is indicated that rare quality of mind which crystallized thought into felicitous phrases, and stamped him as the ablest statesman and diplomatist of his time.



Probably no two American statesmen more resembled each other in their style of thought and expression than Seward and Alexander Hamilton, the latter the accomplished

aide-de-camp of General Washington, and subsequently Secretary of the Treasury under Washington's administration. In many respects the autographs of Seward and Hamilton also resemble each other.

The autograph of Garfield is easy, flowing, and graceful, without redundancy or pretension. Nothing could be more in keeping with the scholarly attainments, graceful oratory, and unpretentious merit of its author.



The autograph of General Grant is plain and simple in its construction, not an unnecessary movement or mark in it—a signature as bare of superfluity and ostentation as was the silent soldier and hero of Appomattox.

In the autograph of R. E. Lee we have the same terse, brief manner of construction as in Grant's. It is more antiquated and formal in its style, more stiff and what might be called aristocratic. Its firm upright strokes, with angular horizontal terminal lines, indicate a determined, positive character.

In somewhat marked contrast with the two last-mentioned autographs is that of General Beauregard, in that he indulges in a rather elaborate flourish, which is a national characteristic.

SEX IN HANDWRITING.— It would seem to be from a difference, original and instinctive, that a boy delights in his hobby-horse and the girl in her doll; that the greater and more heroic things of life engage the attention of men, while women are led by their nature and instinct into the more circumscribed realm of social and domestic life. She ornaments her home and decorates her person quite beyond the inclination of man. She is punctilious as to the niceties and details of life; he is impatient of them. So in writing, she can omit no detail that catches her fancy more than she could omit to adorn her person with some dainty ribbon. It is thus that a woman betrays her sex in the fastidious detail of her writing.

It will occasionally happen that some masculine woman will so closely approximate the plainness of male handwriting as to challenge a sex identity, just as an occasional male "Miss Nancy" will manifest, in his writing, a feminine caprice to a degree that will destroy any sex distinction.

It is therefore through the almost inevitable caprice and fancy touches of writing that an expert distinguishes between the writing of the sexes.

CHAPTER II.

MOVEMENTS IN WRITING DEFINED AND ILLUSTRATED — STYLES OF WRITING: ANGULAR, SEMI-ANGULAR, ROUND-SHADED, UPRIGHT, AND BACK-HAND.

FOUR movements are more or less employed in writing, — the finger, the combined finger and wrist, the combined finger and fore-arm, and sometimes a whole-arm movement is united with one or more of the others. With the finger movement the hand and arm rests upon the table, the motions of the writing being performed chiefly by the fingers. Finger-movement writing is usually shaded, slow, formal, and without dash or flourish, and is the most susceptible of forgery or imitation.

In combined finger- and wrist-movement writing, the action of the muscles of the wrist chiefly supply the motion, and the writing is characterized by a considerably enlarged scope. It is less formal, and is written with facility and more or less dash.

The combined finger and fore-arm movement is the most easy, rapid, and tireless of the movements, the motion coming chiefly from the action of the muscles of the fore-arm. On this movement writing is usually less formal and accurate than writing on either the finger or wrist movements, and requires very much more discipline to acquire or retain than do those movements.

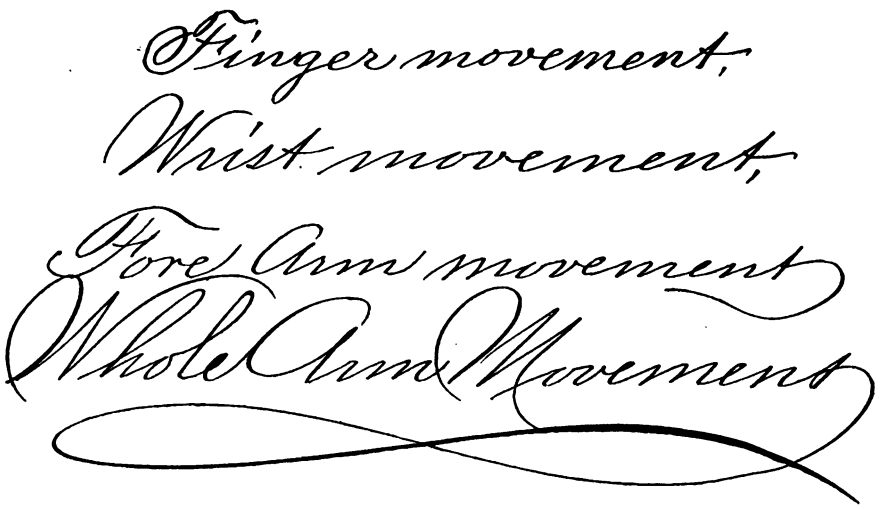
The whole-arm movement is employed in blackboard and other writing upon a very large scale. Many writers who make use of large, flourishy capital letters in their autographs, or in displayed headings upon books or hotel

registers, etc., make use of this movement. It is also the chief movement in "flourishing," which in earlier times cut an important figure in the chirographer's art.

The greater the freedom of movement in writing, the more difficult it is to forge or simulate. Writing and signatures which are slowly and laboriously written on a finger movement can be most easily and successfully imitated.

It is exceedingly difficult for a person habitually writing by one movement to successfully imitate writing executed by another movement. One habituated to the finger movement cannot successfully forge the writing of a fore-arm writer. The fore-arm writer will be much more successful in imitating writing written with the finger movement. It is possible for a more skillful writer to descend to the low art of an unskilled writer, but is far less probable that the unskilled hand should ascend to a much higher scale of art than it has ever known or practiced.

MOVEMENTS.



STYLES OF WRITING.

ANGULAR WRITING.

(Combined fore-arm and finger movement, fore-arm predominating.)

December, 1887.

Editor Art Journal

This gives a good idea of the best muscular movement work of

Yours truly

Minneapolis, Minn. G. A. Gruman.

SEMI-ANGULAR WRITING.

(Combined fore-arm and finger movement.)

No. 84. New Haven April 12, 1888.

First National Bank.

Pay to the order of Winthrop Anderson & Co.

One Hundred Twenty and 44/100 Dollars.

$120 44/100 Sven Cedervall.

ROUND HAND, SHADED.

(Finger movement.)

Pay to Richard Roe as trustee for the sole use and benefit of his surviving children, equally; the receipt of said trustee to be a full discharge for the same and said Company not to be bound to see to the ap-

UPRIGHT WRITING.

(Fore-arm and finger movement, finger predominating.)

That teacher must be poor indeed who has not each year a few dollars with which to buy new ideas.

BACK-SLANT WRITING.

(Fore-arm and finger movement.)

Resolved, That a copy of this Memorial be suitably engrossed and transmitted to the family of our beloved and worthy brother, and also published in the Arlington Advocate.

CHAPTER III.

WRITING UNDER ABNORMAL CIRCUMSTANCES — WITH THE LEFT HAND — BY PERSONS INTOXICATED, NERVOUS, ASSISTED, OR HYPNOTIZED — WITH PENCIL OR STYLOGRAPHIC PEN.

THE question is often raised as to the effect of any abnormal condition of a person upon his writing; for instance, writing with an untrained left hand, or while intoxicated, or in a hypnotic state, or by a paralytic or one infirm from old age, disease, or impaired mental or physical capacity from any cause.

While the writer does not presume to speak as a specialist in all of the several departments in which these various peculiarities would be classed, he has observed the peculiar phenomena of writing executed under all these conditions, with the general result that under them all the hand, which from lifelong practice has come to write, as it were, automatically, through the sheer force of habit, continues, however changed the circumstances, to be dominated by the same old habits, and strives to write as before; and its efforts will be modified to the degree, and in a manner, peculiar to the nature and extent of the difficulty under which it writes.

That resulting from writing with the left hand is exceptional from the fact that in the left hand a new and untrained agent is introduced to do the work of the old and habituated one; a joint mental and physical effort is therefore required to contend with the difficulty. The mind presents the old idealized model of writing, and engages its will and attention in the effort to instruct and impel its

new agent to make the nearest possible approach to the habitual work of its former one; the new agent, the left hand, aspiring to the same model under the same tutelage, continues its striving to accomplish the same result, which it will more and more approximate as it gains control of the pen and consequent facility in its movements; and in all its stages, from its first awkward effort to ultimate skill and ease, there will be the old characteristic writing, the same as "Yankee Doodle" is "Yankee Doodle" whether performed by the greatest master or tortured by the merest tyro. Even were one to lose both hands, and write, holding his pen in his teeth or between his toes, the writing would have a distorted resemblance to that written formerly with the hand.

The writer has known several instances where persons accustomed to write with their right hand have, from some cause, substituted the left hand. In all cases where a similar slant has been maintained, the writing of the left hand, as it came to be written with a facility approximating that of the right, has assumed a correspondingly close resemblance. It is said that, late in life, Thomas Jefferson lost the use of his right hand to such a degree as to cause him to substitute his left hand for writing, and that, after a short time, writing with his left hand was scarcely distinguishable from that formerly written with his right.

In the following cut are presented specimens written with the right and left hands by a young man who was to a considerable extent ambidexterous. Although the right hand was habitually used for writing and most other purposes, yet the left hand was used with considerable facility, as is manifest in the specimen here presented for comparison.

It will be observed that the types of letters throughout both writings are the same, and that there is an evident effort to construct and relate the letters in the same manner; this is specially noticeable in the autograph.

RIGHT HAND.

When in the course of human events it becomes necessary to write with the right hand.

Peter T. Sharp, Jr.

LEFT HAND.

When in the course of human events it becomes necessary to write with the left hand.

Peter T. Sharp, Jr.

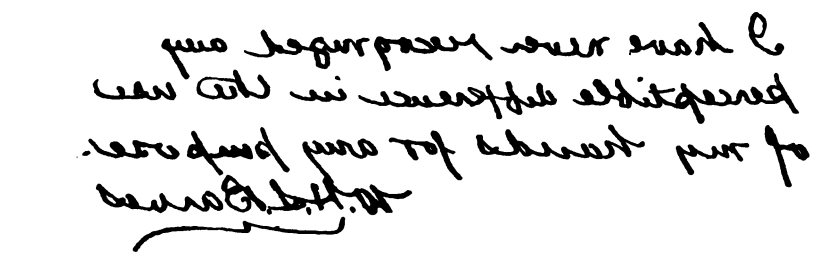
Below we present specimens of writing by General W. H. L. Barnes, a leader of the bar of San Francisco, Cal. Each of the specimens was written with an easy and rapid movement, and without hesitation, and is, therefore, an excellent vindication of the theory that however one writes, the prominent characteristics of his hand remain. The last specimen, if placed before a looking-glass, will present all the characteristics of the other two.

Right Hand.

I have never recognized any perceptible difference in the use of my hands for any purpose.
W. H. L. Barnes

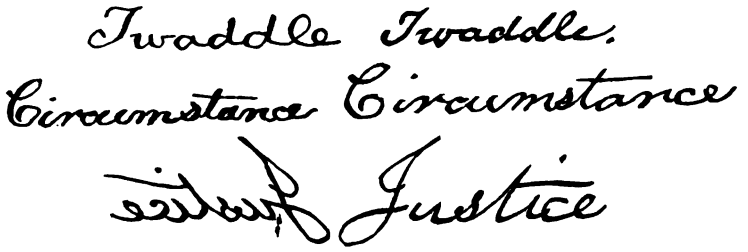
Left Hand.

I have never recognized any perceptible difference in the use of my hands for any purpose.
W. H. L. Barnes

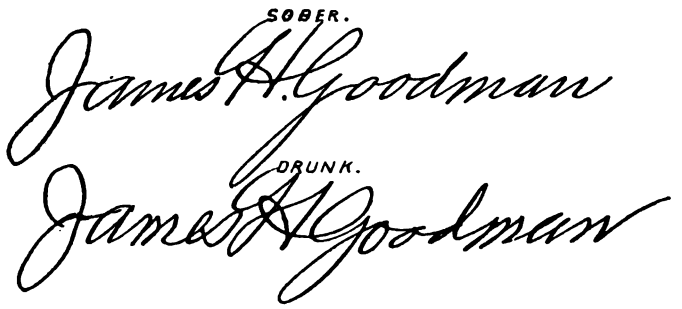


In the following specimen, the three words to the left were written with the left hand; their duplicates at the right were written with the right hand. The last two were

written simultaneously with both hands by Mr. C. E. Cockey, at the head of the supply department of the Western-Union Telegraph Company, New York.



Intoxication manifests itself in loose, vacillating lines that swing and stagger around the characteristic forms of the writer's normal writing, much as do his legs and body along the way, in locomotion. Letters and words tend to begin and end in the same manner as in normal writing; habitual spacings of words and letters are distorted; shades tend to be in their habitual places, though more or less vacillating as to place and degree. The habitual mechanical arrangement is closely normal.

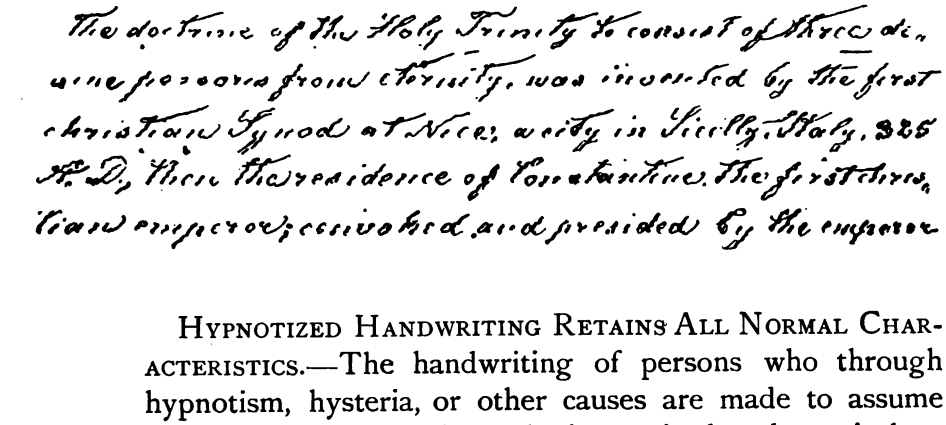


WRITING IMPAIRED BY AGE OR INFIRMITY.—A weak and infirm hand moves with a less erratic motion than under intoxication, but with a waving motion, and the words are more or less broken into letters and syllables.

In palsied writing the lines are more or less zigzag, tend-

ing to change their directions on angles rather than curves; shades are abnormal and the writing broken.

In the following cut is presented an excellent specimen of writing under extreme muscular difficulty. It will be observed that all the changes in the directions of the lines are on angles, in place of curves, or swings, as in the case of intoxication or weakness; also, that evidently the changes are at equal intervals of time, varying in distance, simply according to the rapidity of the motion of the pen.


The doctrine of the Holy Trinity to consist of three de-
vine persons from eternity, was invented by the first
christian Synod at Nice, a city in Sicilly, Italy, 325
A. D., then the residence of Constantine, the first chris-
tian emperor; convoked and presided by the emperor

Hypnotized Handwriting Retains All Normal Characteristics.—The handwriting of persons who through hypnotism, hysteria, or other causes are made to assume double consciousness (*i. e.*, the hypnotized or hysterical, as well as the normal state), has been discussed more or less and many theories advanced, but no practical demonstration has hitherto been made, or at least made public, so far as we can learn.

All reason would indicate that the characteristics of a person's normal handwriting would remain in the hypnotized writing, because the hypnotic subject does nothing while under the influence of the hypnotist that he is unable to do while in a normal state. For example, the subject could not execute a piece of artistic penwork in the hypnotized state, if he were a poor penman in his normal state.

From the fact that hypnotic subjects (while under the spell) can be and have been made to sign checks, deeds, wills, etc., disposing of property, and write letters that would injure them in various ways, courts have been called

upon occasionally to deal with such cases. Frequently a hypnotic subject has denied his genuine signature to a paper, because he had no remembrance of having signed it. Hence, it is of the utmost importance to handwriting experts, and to the courts, to be able to determine whether the writing in question is genuine or not. The question of interest to all students of handwriting is whether the characteristics do or do not remain the same in handwriting produced in both states.

A trial and experiment was made upon a young man, Mr. Guy Oppelt Mason, who had never been hypnotized. He was put under hypnotic influence, and was requested to write two specimens of his handwriting. After being awakened, he wrote a specimen in his normal state. He said that he had not written the hypnotized specimens; at least, he did not remember anything about it

This is a specimen of my writing in my normal state.

Guy Oppelt Mason

This is a specimen of my writing when hypnotized

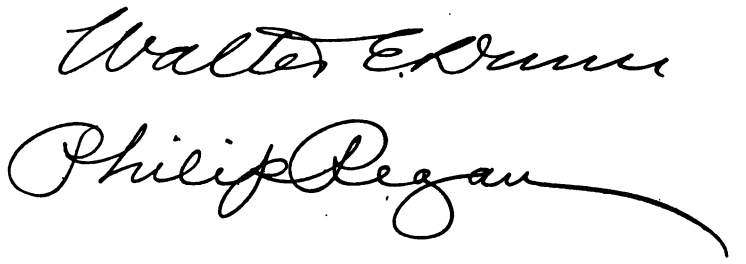
Guy Oppelt Mason

A comparison of the two specimens will show that about the only difference is the size. Mr. Mason, while in the hypnotic state, had been told that he had the toothache, etc., and consequently was more or less agitated when he sat down to write. While there are a few slight differences in some letters and in the pictorial effect, on the whole the two specimens are wonderfully alike, and are most con-

vincing that hypnotism, and no doubt other forms of double consciousness, cannot destroy the characteristics in handwriting. A curious feature in both specimens is the mispelling of the word *specimen.*

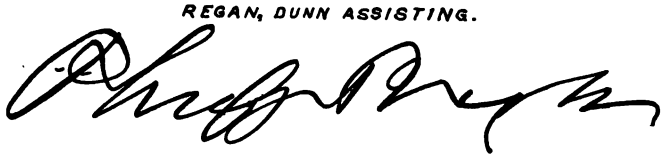
Nothing is more difficult of successful simulation, and nothing is more difficult to destroy, than character in handwriting. That writing is the result of unconscious reflex action, nothing more positive or convincing is needed than an examination of the two specimens.

WRITING BY A GUIDED HAND. — The character and quality of writing in case of a controlled or assisted hand must depend largely upon the relative force exercised by the joint hands. The difficulty in writing arises from the antagonizing motion of one hand upon the other, which is likely to produce an unintelligible scrawl, having little or none of the habitual characteristics of either hand.



DUNN, REGAN ASSISTING.

REGAN, DUNN ASSISTING.



DUNN, REGAN PASIVE.

Where one hand is more or less passive, the controlling hand doing the writing, its characteristics may be more or less manifest in the writing. But obviously the controlling hand must be seriously obstructed in its motions by even a passive hand; and since the controlling hand can have no proper or customary rest, the motion must be from the shoulder and with the whole arm. The writing will therefore be upon an enlarged scale, loose, sprawling, and can have little, if any, characteristic resemblance to the natural and habitual style of the controlling writer, and of course none of the person's whose hand is passive.

PENCIL AND STYLOGRAPH VERSUS PEN-AND-INK WRITING.—Pencil or stylographic writing, by the same person, must differ materially from that written with a two-nibbed pen. Shade, which is usually an important characteristic in writing with a pen, is either absent or greatly modified in pencil or stylographic writing. A shaded line in writing, in contradistinction to an unshaded line, is one where sufficient pressure is given to open the nibs of the pen on a downward movement, as against a line made with the nibs closed on an upward movement.

When pencil writing is in question the task of the expert is greatly enhanced, from the fact that writing by the same person using a pencil often varies greatly from that with a pen, though this variation is chiefly in facility and shade. Of course it is the same habit and ideal of writing, whether written with pen or pencil. But the pencil, from its round, smooth point, glides easily, regardless of its position as to the paper, but, having a single point, cannot repeat the shades of the two opening nibs of a pen. The expert must therefore rely chiefly upon a comparison of characteristic forms where pencil writing is in question.

From the greater smoothness and gliding qualities of its point, the pencil furnishes a better support to the hand; therefore any characteristic nervousness or muscular difficul-

ties are much better overcome. Consequently it often happens that very bad writers with a pen are passably good writers with a pencil.

WRITING AFFECTED BY NERVOUS DISEASES.—Dr. William Hammond, in his celebrated work on "Nervous Diseases," which is accepted as a standard of authority on that class of diseases, instances several cases of the deterioration and ultimate degradation of the writing by persons in neurotic states. He says: "In nearly all diseases of the spinal cord and brain, the writing is amongst the first voluntary movements to depart from the normal condition of performance. To the trained eye of the graphologists this fact is laden with meaning; but at present it has not occupied the attention due to its importance of the medical profession. There is no doubt whatever that each organic disease and the *cachexia* leading to it is discoverable in the writing of all sick persons who can use the pen; and the higher the grade of the intelligence, the more radical will be the indications." Not only is the loss of co-ordinate nervous muscular power traceable, as in the case given by Dr. Hammond, but the advance of an insidious disease must, to some extent, be a factor in the actual character, and as such should be capable of unerring recognition.

CHAPTER IV.

SIGNATURES OR OTHER WRITING NEVER WRITTEN TWICE ALIKE—HOWLAND WILL CONTEST.

It is a fact universally recognized by experts and those well informed respecting handwriting, that a man never writes his signature twice exactly alike. Approximations may be very close, but never microscopically the same. While this is true of measurements and minutiæ of detail, there are yet ever-present, coincident characteristics that positively identify one genuine signature with another. Letters and writing no more change *characteristics* with their measurements, than does a square, a circle, or a triangle.

Signatures may differ widely in their general appearance, according to their size, purpose, the ink or pen with which they are written, physical or mental condition of the writer, whether written with haste or deliberation, etc.; but none or all of these circumstances can create a new handwriting any more than a change of garb or circumstances can make a new man. It is the same character of writing or man masquerading in a new role. And what is true of a signature is also largely true of any extended writing. One writing naturally, seldom exactly duplicates a word, rarely a phrase, never an extended period.

One's signature usually differs from his general writing from the fact that there is more thought and care exercised in the choice of types of letters and so combining them as to give the greatest facility in writing it; and frequently artistic effect is considered, and from the more frequent

repetition of an autograph it is written more automatically than is body writing. It is usually more or less monogrammic in its character, and comes ultimately to be more personified and to stand in a peculiar manner as the representation of its author. It palpitates, as it were, with his very life and character,—it is his *Alter Ego.*

Writing undergoes a perceptible change with every altered circumstance of the writing. It is rare that blank spaces left in a document can subsequently be so filled, by the same hand, as not to present a difference noticeable to an expert examiner. Writing at the beginning and close of an extended letter or document differs in the degree of its facility. The accountant or clerk, after a long vacation, does not resume his writing with the accustomed facility of hand.

In the celebrated Howland Will Case, tried some years since at New Bedford, Mass., (4th American Law Review, p. 460,) because three signatures were, by measurement and superimposition, shown to be identically the same, forgery was alleged. Among numerous other witnesses called as experts to give testimony was Professor Peirce, of Harvard University, who entered into a complicated mathematical computation to show how many times a man, under the law of chance, would be required to write his autograph composed of fourteen letters before three duplications would occur. He figured the number to be 2,666,000,000,000,000,000,000 times. Conceding the correctness of his conclusion based upon a signature having fourteen letters, the number of chances of exact repetition would be multiplied or diminished according to the greater or lesser number of letters in any given signature, and also as to the degree of eccentricity or caprice in the habit of the writer.

CHAPTER V.

PERSONS DO NOT ALWAYS RECOGNIZE THEIR OWN SIGNATURES — NOTABLE INSTANCES CITED.

A FEW years since there was delivered from the New York Custom House, on apparently proper orders, two bales of valuable silk. Shortly after the delivery the importing merchant presented his regular orders for the silk, which could not be found. The two orders upon which it already had been delivered were found upon the file. Obviously one set of orders was forged. All were written upon the regular Custom House blanks and purported to bear the O. K.'s, or signatures, of the heads of the several departments of the Custom House through which such papers are required to pass. On being submitted to these several persons, each unhesitatingly pronounced his signature to be genuine, but no one was found who admitted having written the body of the suspected orders. At this stage of the case the writer was called to the Custom House. The suspected orders, together with specimens of the writing of every employee of the Custom House who, from his position, could have written the orders were submitted to him, with a request that he discover, if possible, the person who had written in the body of the orders. The writer was told at the same time by the Collector, Mr. Magone, that he need give no attention to the signatures, as they were all admittedly genuine, only the written filling-in of the orders being unidentified. The papers were taken to the private office of the Collector for examination. Immediately upon inspection of the writing under the microscope

it was evident that not only the writing in the body, but all the signatures were skillfully executed forgeries. This was reported to the Collector, who excitedly declared that it was simply folly for an expert to set his opinion against the positive admission of the genuineness of their signatures by their several implicated writers. On the persistence of the expert, however, the several alleged writers of the signatures were called to the office, where each reaffirmed that his signature was genuine. Each was then requested to look at the writing through the microscope and observe the uneven, tremulous, broken lines and retouched shades (one of which was the heavy staff of a capital J, which had first been made with a light stroke, and then re-enforced by another, the two strokes being separated a portion of the way by a white line), and say if that was in accordance with their style of writing. Each became immediately convinced that he had been deceived, and that his "admittedly genuine signature" was really a very clever forgery.

When questioned originally as to how it was that they had signed the forged orders, the first on the list replied that in the routine of business the orders came to him in a package clamped together. As he turned them up to O. K. them, occasionally two would come up together, one of which would escape the O. K., and on its discovery and return to him, he O. K.'d it in simply a perfunctory manner. He presumed that it was in this manner that these spurious orders had received his O. K. The second accounted for the presence of his O. K. from the fact that it came in the usual way, indorsed by his subordinate. In a similar manner each one accounted for the presence of his name upon the forged papers. The stolen silk was traced and recovered. Suspicion soon rested upon a well-known forger as the author of the scheme for robbery and of the spurious orders. Specimens of his writing were secured, and upon comparison it was identified with that upon the orders. He

was tried, convicted, and sent to State's prison. After conviction he confessed to the forgery and the entire scheme for robbery.

THE CISCO CASE.—Some years since one of the best-known bankers of New York City, John J. Cisco, testified in court in a very positive manner, even alleging that he could not be mistaken, that he had written a certain signature in question which an expert had just declared to be a forgery. While Mr. Cisco was giving his testimony, the expert, Mr. Joseph E. Paine, sitting at a table in the court-room, wrote an imitation of the signature, which was handed to Mr. Cisco (the paper being so covered that the signature only was visible). When he was asked concerning it, he with equal positiveness pronounced it to be genuine. His surprise may be imagined when on the removal of the surrounding cover he perceived it to be written upon a scrap of paper, and was informed as to how it had been written.

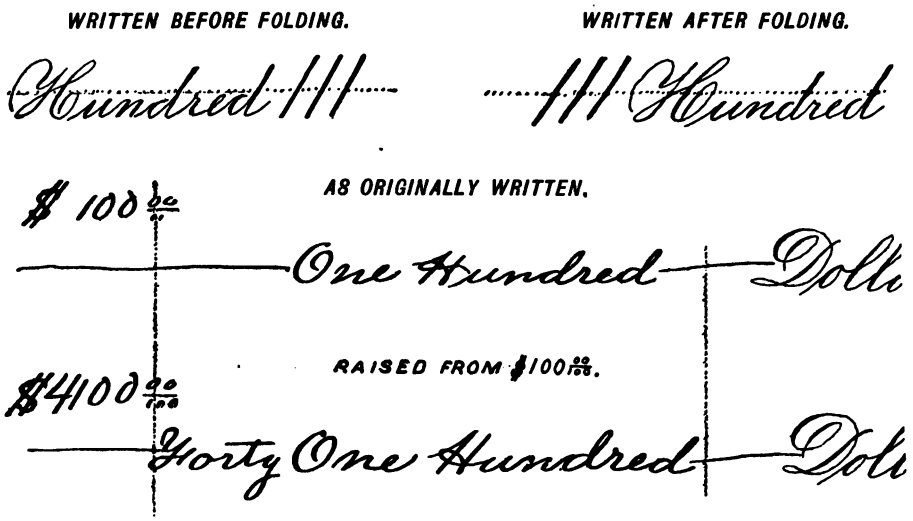
THE GAULT CASE.—Another case occurred not long since in Washington, D. C. William Gault, a wealthy merchant of Washington, denied the genuineness of his signature upon an indemnity bond, where it purported to have been written fifteen years before. The writer gave testimony showing the signature to be genuine. Mr. Gault had listened attentively to the evidence presented, and the presumption on the part of his attorneys was that he would take the stand and reaffirm his denial of its genuineness; but to their utter consternation and that of several witnesses present, including one handwriting expert called to sustain the expected denial, Mr. Gault, when he took the stand, stated that he had changed his belief respecting his signature, and said, "I now believe it to be genuine." A verdict was at once rendered accordingly.

CHAPTER VI.

WRITING OVER FOLDS IN THE PAPER AND ONE INK-LINE OVER ANOTHER — INDICATIONS BY WHICH THE FACTS MAY BE DETERMINED — IMPORTANT CASES CITED AND ILLUSTRATED.

It is seldom that an ink-line can be carried across a fold in the paper or another ink-line without leaving positive evidence as to the priority of the fold or the ink-line, which fact often furnishes material evidence as to the genuineness of a document or handwriting. Pen-and-ink lines are usually more or less deflected from their course at the point of intersection with a fold, and if the fold has been sharp, or the folding and unfolding frequent, the fibres of the paper will have been more or less drawn and loosened, imparting to the paper along the fold a more or less spongy and absorbent condition; it will, therefore, more readily take ink from the pen as it crosses the fold, causing an apparent dot or a longitudinal ink-line in the fold.

On the next page we present examples. The first represents writing and lines before and after the paper was folded. The second is a representation of a case which was lately submitted to the writer, where a note was originally written for one hundred dollars, but was presented to the executors of an estate for forty-one hundred dollars. The note was believed to be a forgery, and in that belief it was submitted to the writer, with numerous genuine signatures, for an expert opinion. The signature was found to be genuine, but the fact that the note was originally written for one hundred dollars was discovered and presented with such evidence as to result in the withdrawal of the entire claim.



From a careful inspection of the writing in the note it was first observed that, among the figures expressive of the amount, the figure "4" was disproportionately large to the others and more crowded in the space. Referring to the word "Forty" in the body of the note, it appeared at variance with the other writing, being more formal and out of harmony as to slope, but this might all be the result of accident, and at best only raised a more or less strong suspicion against the integrity of the note. But it was further observed that the word "Forty" was written over an erasure, and that the lower part of the *F* extended over a fold in the paper, as did the dash before it, and that at each of the three points of crossing of the fold by the ink-lines, there was an expansion of the ink into the fold, which was not the fact at any other crossings of the folds by ink-lines on the note. Thus the fact was demonstrated that the word "Forty" had been written and the dash before it made after the note had been folded, while the other portions of the note had been filled in prior to its having been folded, proving conclusively that the note had been fraudulently raised from one to forty-one hundred dollars.

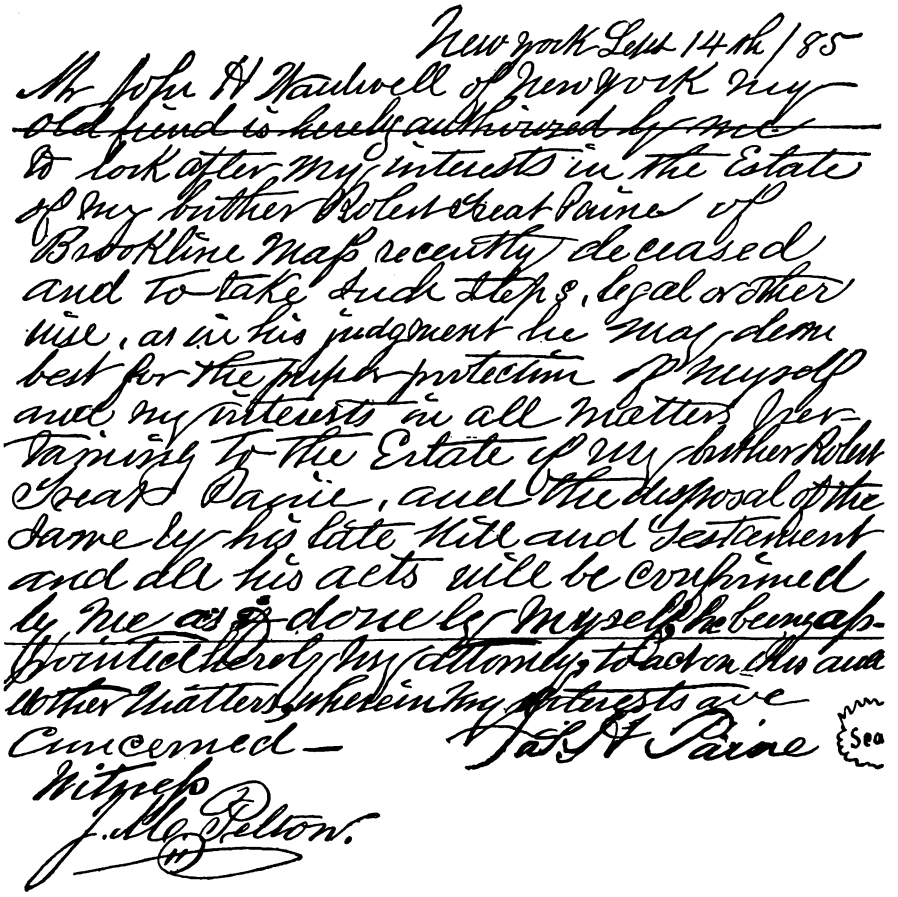
MISER PAINE CASE.—James Henry Paine died in New York on December 22, 1885, in the habiliments of poverty. From his mode of life and personal appearance, he was regarded by all but a few intimates as a dire-beset mendicant. He lived alone in one of the shabbiest old attics in a poor quarter of the city, and sustained life on leavings begged at various restaurants and saloons.

Among the men who knew of Paine's real circumstances, and that he was really possessed of great wealth, was one John H. Wardwell, a New York lawyer, who defrayed the expenses of his funeral, and claimed to be in absolute charge of all his affairs. In substantiation of his claim he produced a sweeping power of attorney, alleging that it had been given to him by Paine. Wardwell immediately sought out the relatives of Paine and endeavored to secure their consent to accept one half of whatever sum he might realize from the estate, claiming at the same time that Paine had left a will bestowing upon him his entire estate. Some of the heirs, however, grew suspicious and refused assent to Wardwell's scheme, but at once took measures to oppose it. On a petition to the Surrogate, an administrator was appointed. Able counsel was employed on both sides, Ex-Governor D. H. Chamberlain by Wardwell, and Ex-Judge Leslie Russell for the administrator.

Property belonging to the estate aggregating millions was soon discovered. Wardwell continued to push his claim, both as Paine's legatee under an alleged but undiscovered will, and by virtue of his power of attorney. The genuineness of the power of attorney, which was confessedly in Wardwell's handwriting, was questioned by the counsel for the administrator and submitted to the writer, who found, upon examination, that the signature was genuine, but that, as originally signed, it was special, only conferring power to settle Paine's interest in the affairs of the estate of a deceased brother, but that subsequently, over three lines of writing had been added, thereby con-

verting it from a special into a general power of attorney. The reason for this opinion was as remarkable as it was conclusive.

FACSIMILE OF THE CHANGED POWER OF ATTORNEY.



New York Sept 14th / 85

Mr John H Wardwell of New York my ~~old friend is hereby authorized by me~~ to look after my interests in the Estate of my brother Robert Great Paine of Brookline Mass recently deceased and to take such steps, legal or other wise, as in his judgment he may deem best for the proper protection of myself and my interests in all matters pertaining to the Estate of my brother Robert Treat Paine, and the disposal of the same by his late Will and Testament and all his acts will be confirmed by me as if done by Myself he being appointed hereby my attorney to act in this and other matters wherein my interests are concerned —

Witness
J. M. Pelton.

Jas T Paine Seal

We quote from the report of the court proceedings in the New York *Times*:—

"With the document (the power of attorney) in his hand and a large microscope beside him, Mr. Ames said that he had devoted several hours the day before to the examination of the power of attorney, and had discovered that the latter part of the writing, including three and one-half lines, beginning with the words 'as if done,' down to and

including the final word 'concerned,' had been written subsequently to the writing of the signature. The importance of this evidence is apparent when it is seen that the alleged added words radically changed the powers conferred by the document upon Wardwell, rendering them unlimited instead of limited. No question existed as to Wardwell's having written the entire body of the document. The expert undertook to prove it, but Wardwell's counsel, to save time, admitted that his client was the writer. The expert having made his assertion, proceeded to give his reasons in support of it. He called attention to what he claimed was, under the microscope, clear evidence of an erasure between the words 'as' and 'if,' the *s* of the 'as,' and the *i* of the 'if' being written over the erasure, which also had obliterated a portion of the base line. He was sure that the last three and one half lines of the body of the document had been written subsequently to the part preceding.

"Ex-Governor Chamberlain conceded that it was the case, and said that it was so written by advice of Ethan Allen.

"'Will you concede that it was written after the signature?' Judge Russell asked.

"'I am hardly going to plead guilty for my client,' Mr. Chamberlain answered, in his most sarcastic manner.

"The expert gave it as his opinion that the added words were written after the signature, and explained that part of the word 'interests' ran into the *J* of the signature, and that the word 'are' was actually elevated to avoid contact with the *P* in 'Paine.' Also that the general crowded appearance of the writing on that part of the document is at variance with other portions of it, and in view of the large space below he could not believe that the signature would have been so crowded into the writing above had it been there before signing. Mr. Ames also believed that the word 'witness' had been written after the signature. But the astonishing demonstration followed when Mr. Ames pointed out the fact that across the document were two well-worn folds in the paper."

These folds are represented in the accompanying cut by two black lines. Wherever lines crossed the upper fold, the ink-lines were broken by a white line in the fold, while this was true only of one line crossing the lower fold. That line was the loop of the letter *y* in "by," the first word. From this point forward, from every line crossing the fold, the ink had run into the fold so as to make a

strong black line at the point of the crossing. See *f* in "if," *y* in "by," *y* and *f* in "myself," *g* in "begin," *p* twice in "appoint," *h* and *b* in "hereby," *m* in "my," and *h* in "this." This made a conclusive demonstration that all of the document, before and including the words "by me," was written before the paper was folded, and that all following these words was written subsequently to the folding, showing that the document had been written upon two different occasions, separated by a period of considerable use. It was also shown that the paper was written with three different kinds of ink. These facts disposed most effectually of the power of attorney and all pretensions of Mr. Wardwell as a claimant in the case. He shortly afterward died, apparently from worry and fear of a criminal prosecution, for the role he had played as a forger and perjurer.

THE CROSSING OF INK-LINES.—Which of two ink-lines crossing each other was made first, is not always easy of demonstration. To the inexperienced observer the blackest line will always appear to be on top, and unless the examiner has given much intelligent observation to the phenomena and the proper methods of observing it, mistakes are very liable to be made. Owing to the well-known fact that an inked surface presents a stronger chemical affinity for ink than does a paper surface, when one ink-line crosses another, the ink will flow out from the crossing line upon the surface of the line crossed, slightly beyond where it flows upon the paper surface on each side, thus causing the crossing line to appear broadened upon the line crossed. Also an excess of ink will remain in the pen furrows of the crossing line, intensifying them and causing them to appear stronger and blacker than the furrows of the line crossed.

CHAPTER VII.

METHODS OF FORGERY, THEIR DETECTION AND ILLUSTRATION—FORGERY BY THE AID OF A TRACING, HOW EFFECTED, AND THE INEVITABLE INDICATIONS; ALSO FREE-HAND FORGERY, AND THE METHODS OF ITS DETECTION.*

THERE are two general methods of perpetrating forgeries; one by the aid of tracing, the other by free-hand writing. These methods differ widely in details, according to the circumstances of each case.

Tracing can only be employed when a signature or writing is present in the exact or approximate form of the desired reproduction. It may then be done by placing the writing to be forged upon a transparency over a strong light, and then superimposing the paper upon which the forgery is to be made. The outline of the writing underneath will then appear sufficiently plain to enable it to be traced with pen or pencil, so as to produce a very accurate copy upon the superimposed paper. If the outline is with a pencil, it is afterward marked over with ink.

Again, tracings are made by placing transparent tracing-paper over the writing to be copied and then tracing the lines over with a pencil. This tracing is then penciled or blackened upon the obverse side. When it is placed upon the paper on which the forgery is to be made, the lines upon the tracing are retraced with a stylus or other smooth, hard point, which impresses upon the paper underneath a faint outline, which serves as a guide to the forged imitation.

* See Bird Case, on another page.

In forgeries perpetrated by the aid of tracing, the internal evidence is more or less conclusive, according to the skill of the forger. In the perpetration of a forgery the mind, instead of being occupied in the usual function of supplying matter to be recorded, devotes its special attention to the superintendence of the hand, directing its movements, so that the hand no longer glides naturally and automatically over the paper, but moves slowly with a halting, vacillating motion, as the eye passes to and from the copy to the pen, moving under the specific control of the will. Evidence of such a forgery is manifest in the formal, broken, nervous lines, the uneven flow of the ink, and the often retouched lines and shades. These evidences are unmistakable when studied with the aid of a microscope. Also, further evidence is adduced by a careful comparison of the disputed writing, noting the pen-pressure or absence of any of the delicate unconscious forms, relations, shades, etc., characteristic of the standard writing.

Forgeries by tracings usually present a close resemblance in general form to the genuine, and are therefore most sure to deceive the unfamiliar or casual observer. It sometimes happens that the original writing from which the tracings were made is discovered, in which case the closely duplicated forms will be positive evidence of forgery. The degree to which one signature or writing duplicates another may be readily seen by placing one over the other, and holding them to a window or other strong light, or by close comparative measurements.

Traced forgeries, however, are not, as is usually supposed, necessarily exact duplicates of their originals, since it is very easy to move the paper by accident or design while the tracing is being made, or while making the transfer copy from it; so that while it serves as a guide to the general features of the original, it will not, when tested, be an exact duplication. The danger of an exact duplication is quite generally understood by persons having any

knowledge of forgery, and is therefore avoided. Another difficulty is that the very delicate features of the original writing are more or less obscured by the opaqueness of two sheets of paper, and are therefore changed or omitted from the forged simulation, and their absence is usually supplied, through force of habit, by equally delicate unconscious characteristics from the writing of the forger. Again, the forger rarely possesses the requisite skill to exactly reproduce his tracing. Much of the minutiæ of the original writing is more or less microscopic, and from that reason passes unobserved by the forger. Outlines of writing to be forged are sometimes simply drawn with a pencil, and then worked up in ink. Such outlines will not usually furnish so good an imitation as to form, since they depend wholly upon the imitative skill of the forger.

Besides the forementioned evidences of forgery by tracing, where pencil or carbon guide-lines are used, which must necessarily be removed by rubber, there are liable to remain some slight fragments of the tracing lines, while the mill finish of the paper will be impaired and its fiber more or less torn out, so as to lie loose upon the surface. Also the ink will be more or less ground off from the paper, thus

ORIGINAL SIZE.

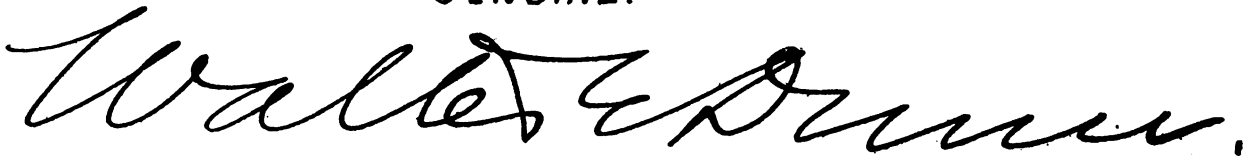
GENUINE.

FORGED TRACING.

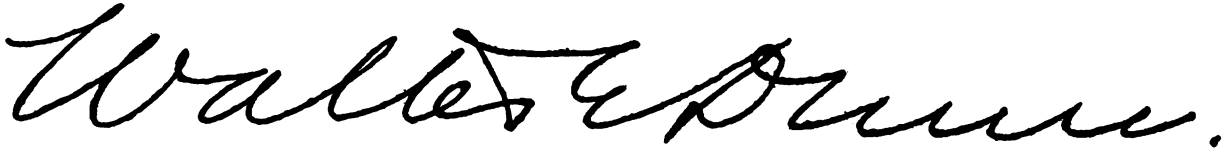
FORGED FREE HAND.

ENLARGED COPIES TO AID COMPARISON.

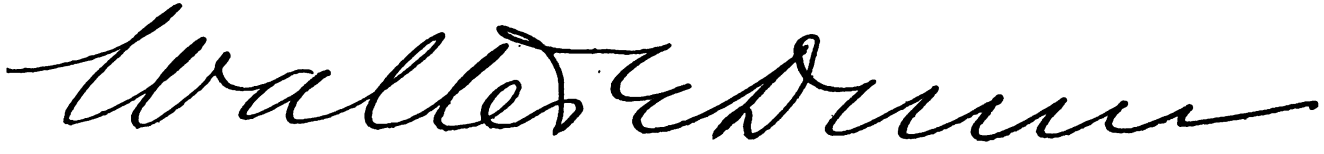
GENUINE.



FORGED TRACING.



FORGED FREE HAND.



giving the lines a gray and lifeless appearance. And as retouchings are usually made after the guide-lines have been removed, the ink, wherever they occur, will have a more black and fresh appearance than elsewhere. All these phenomena are plainly manifest under the microscope. Where the tracing is made directly with pen and ink over a transparency, as is often done, no rubbing is necessary, and of course the phenomena from rubbering does not appear.

Where signatures or other writings have been forged by previously making a study and practice of the writing, to be copied until it has been to a greater or less degree idealized, the hand must be trained to its imitation so that it can be written with a more or less approximation as to form and with natural freedom.

Forgeries thus made by skillful imitators are the most difficult of detection, as the internal evidence of forgery by tracing is mostly absent. The evidence of free-hand forgery is chiefly in the greater liability of the forger to inject into the writing his own unconscious habit, and to fail to reproduce with sufficient accuracy that of the original writing, so that when subjected to rigid analysis and microscopic inspection, the spuriousness is made manifest and demonstrable. Specific attention should be given to any hesitancy in form or movement, manifest in angularity or change of direction of lines, changed relations and proportions of letters, slant of the writing, its mechanical arrangement, disconnected lines, retouched shades, etc.

Photographs, greatly enlarged, of both the signatures in question and the exemplars placed side by side for comparison will greatly aid in making plain any evidences of forgery. (See uses of photography in another chapter.)

If practicable, use for comparison as standards both the imitated writing and that of the imitator. These methods, employed by skilled and experienced examiners, will rarely fail of establishing the true relationship between any two disputed handwritings.

CHAPTER VIII.

THE USE OF EXPERT TESTIMONY RESPECTING HANDWRITING — HISTORICAL CASES IN ENGLISH, FRENCH AND AMERICAN COURTS, AND THE ESTIMATE PLACED UPON SUCH TESTIMONY BY HIGH JUDICIAL AUTHORITY.

ASSUMING as an incontrovertible fact that the writing of no two persons can ever be identically the same, it certainly follows that there must exist between all writings a distinguishable difference, and that those persons who, by reason of their specially acute natural discernment, and by their special study and experience in the observation of these distinctions, must come to have greater skill in their discovery and specification than can others not so favorably circumstanced, and that the conclusions which such specialists may reach from the study and comparison of different handwritings will be reliable to the degree of their special skill and integrity and the circumstances of the case.

To the casual observer, different handwritings often look alike and would be mistaken one for the other. Few people could distinguish between the track of a small dog and that of a cat of approximate size, yet the naturalist would readily and unerringly do so. To Mr. Jones "All coons look alike,"—because he is unfamiliar with coons. There are few men who can recognize one bay mule from another in a drove, yet the dealer readily can do so. His eye is trained. So it is in all the affairs of life; the trained eye and judgment of the specialist observe distinctions that escape the eye of the novice. The distinctive value of the specialist's knowledge and skill is recognized in every walk of life—

he is our tailor, architect, dentist, doctor, lawyer, teacher, blacksmith, and so on to the end.

From time immemorial such persons have been called into courts to express their opinions and present their reasons for such opinions concerning their respective callings.

Under the Roman law, the *judex*, or judge, had the right, whenever he chose, to summon those who were specially skilled or informed in any art, trade, or calling, to inform him respecting the same.

In English courts expert testimony has long been admitted. In 1553, Mr. Justice Saunders said: "If matters arise in our law which concern other sciences or faculties, we commonly appeal to the aid of that science or faculty which it concerns, which is an honorable and commendable thing in our law, for thereby it appears that we do not despise all other sciences but our own, but we approve of them and encourage them as things worthy of commendation."

In 1774, a celebrated case was tried, where Olivia, Princess of Cumberland, contested a claim under the will of King George the Third, and by the aid of handwriting experts, discovered and proved an ingenious forgery, establishing her claim to a legacy of the value of fifteen thousand pounds. In the famous Tichborne trial, handwriting experts played a conspicuous part.

The trial of Miss Edmonds, of Brighton, for poisoning a child, was a peculiarly strange case. She had bought poison of a chemist under the assumed name of Wood, which name she signed on the register for the sale of poison. At the time of the inquest on the child, who died from eating poisoned chocolates, she forged a letter in the name of the coroner, requesting the loan of the chemist's book for inspection at the inquest. The chemist gave the book to the boy who brought the letter, and he carried it to Miss Edmonds, who tore out, as she supposed, the entry she had written. It appeared, however, on the trial that the

abstracted entry referred to another Miss Wood, and that the true criminal's writing remained. An expert proved to the satisfaction of the court that the letter and signature were both written by Miss Edmonds, who was convicted of the alleged crime.

AN INTERESTING FRENCH CASE.—Among the *causes célèbres* in which the identity of handwriting has come before the courts of France was one which excited universal interest. One De la Roncier, a young man of noble family, was tried for writing and sending anonymous letters to the various members of another family of distinction. This case is entitled, "Tentative de viol" ("Attempt at Rape").

The members of a distinguished family, the head of which, General Morell, was commandant of a military school for cavalry, residing at Saumur, upon the banks of the River Loire, were recipients of a great number of anonymous letters, which seemed dictated by a malicious spirit of injury and to annoy the family, and especially a young lady, daughter of the General. This state of things becoming unendurable, an effort was made to discover the guilty author of the mischief. This seemed not very difficult, as the writer partially signed his supposed name. Accordingly a young officer, attendant at the school, and son of a distinguished general decorated with the Legion of Honor, was arrested. The daughter, in addition to the authorship of the letters, charged him with a dastardly attempt at violation. He was arrested, though denying all knowledge of the matter, and brought to trial. The distinction of the families, the singularity of the charges, and the publicity given to the affair, occasioned a wide-spread interest. The Palais de Justice was crowded with the elite of the nobility and distinguished strangers, entering with cards of admission, and immense throngs were unable to gain admittance.

The letters were submitted to five handwriting experts,

four of whom, after a careful examination and comparison of the letters with the writing of De la Roncier, united in saying that the letters could not have been written by him, while the fifth in some respects differed in his opinion.

The case was decided against him, and he was condemned to ten years of solitary confinement in prison. He was imprisoned fourteen months, when facts came to light that proved conclusively that he was entirely innocent of the alleged crime, and he was set at liberty. The most astonishing fact was revealed that the accusing young woman had written all the letters.

Here was an instance where a verdict was rendered against expert testimony, and an innocent victim made to suffer humiliation and imprisonment. Another peculiarity of the case was that an extremely eloquent advocate opposed and disparaged the testimony of the experts on the ground of their agreement. "One might have supposed that they themselves were guilty of crime." They were insulted for agreeing, and were compared with the Roman augurs, of whom it had been declared to be wonderful that they could look each other in the face without laughing. It was alleged that experts always agreed, lest, by disagreement, their profession should be discredited and want for patronage. The more common course of attorneys is to catechise experts as to their disagreements, and then characterize their testimony as contradictory, and hence of little or no value.

One of the most able and interesting labors and reports rendered by an expert was that of the celebrated English expert, Mr. Chabot, on the authorship of the mysterious and world-famous "Junius Letters." This report was embodied in an exhaustive publication by the Hon. Sir Edward Twisleton.* The analysis of writing was most painstaking and exhaustive and reflects great credit upon the patient skill of Mr. Chabot.

* This report will be more fully treated elsewhere in this work.

The value of expert testimony, says an eminent English writer, "was never more strikingly exemplified than in a recent case of forgery — one of the most ingenious and daring that has ever occupied the attention of a court of law, the perpetrators of which were convicted of the crimes of conspiracy and forgery at the Old Bailey." The document in question was a will, the signature to which was undoubtedly genuine; the whole of which, indeed, to all appearances, was in regular form and duly witnessed. It devised some seventy thousand pounds, the greater part of which was left by the testator to the man in whose house he was lodging, five thousand pounds only being bequeathed to his only son alive, to whose knowledge and to whom, by a later will, never found and presumably destroyed, there was a bequest of almost the entire estate. On the face of the document, apparently so unimpeachable, there was nothing to do but to submit, and the unfortunate son, under the form of a compromise, was glad to fall back upon the generosity of the principal legatee and accept something more than his five thousand pounds, with the understanding that he keep quiet. But on the thieves beginning to quarrel among themselves about their shares in the booty, one of the discontented began to talk. He was encouraged to continue, and finally gave enough information to warrant an application to the probate court to set aside the compromise as based on a fraud. The whole *modus operandi* was then made clear, and proved to have been almost exactly as had been suspected by the expert to whom, at the beginning of the proceedings, the will had been submitted for examination, and who had made the following observations upon it:—

"In the first place, the signatures were all genuine, and the document itself is in the hand of one of the attesting witnesses — a fact fully admitted. The testator's signature was at the bottom, and the attesting clauses rather curiously cramped at the sides, from their position giving rise to the idea in the expert's mind that they had been

added subsequently with a view to accommodating the signature. The signature itself, too, had a date under it, a peculiarity of the testator's in writing a letter, but never found elsewhere. On further examination of the body of the will, there appeared a certain variation of the spacing between the lines, as though the writer had begun in the belief that there was ample room; then he had narrowed the intervening spaces, had pressed more words into the line, and finally, finding there was still paper to be covered, had spread out again towards the end. In short, everything seemed to point to a will written over and around a signature, and not to a signature naturally written at the bottom of the will, to say nothing of the suspicious circumstances of the date."

In the mean time there began to appear in different parts of the paper, steadily and surely, like growths that would not be denied, certain marks and formations, as though underneath all this fair show the suspected fraud was bent on making itself visible. Early in the inquiry, the will had been glazed and framed, and now, left to itself, the paper began to speak, as it were, and to declare itself otherwise than what it seemed. They were not pencil-marks, but the hollows and shades where pencil-marks had been, and soon they took the form of words and fragments of words, and by the aid of a powerful magnifying-glass could even be read with sufficient clearness to enable the expert to say that they were in the handwriting of one of the attesting witnesses and principal legatee, the prime mover in the fraud, as it afterwards appeared. It has long been known to those who have had experience of palimpsests that time will often recall a writing long believed to have been obliterated. Erase the writing carefully as you will, till all trace of pencil or pen be gone, yet with most kinds of paper all that will be erased will be the immediate marks of the plumbago or the ink. There will still remain the indentations in the paper, which after a time fill up, like cart-ruts, with the dust and surface of the material rubbed across them, and in time gradually clear themselves and reappear. Here, then, was clearly a palimpsest of one kind or another, an ink-writing over pencil,—apparently, from what

could be deciphered, a letter; for at the head of the document traces of "My dear" could be seen — a suspicious fact, to which the date under the signature also pointed in corroboration. And that is precisely what had occurred; for the testator, believing himself to be *in extremis*, desired the presence of his son, and at his request the principal legatee had written for him a letter, taking the precaution of writing it in pencil, while he was equally careful that the signature should be in ink. Then the pencil was rubbed out entirely, as it seemed, and over the precious signature the will was written, dividing the property among the testating witnesses and legatees, and practically disinheriting the son. The same writer continues: —

"Experts have often been somewhat cavalierly treated, both by judge and jury, but (as far as judges, at any rate, have been concerned) that was never a treatment characteristic of the late Lord Chief Justice Cockburn, who perhaps had more occasions of dealing with their evidence in important cases than any other authority on the bench. No one can read his analysis of the different handwritings in the Tichborne case, on the nineteenth day of the summing-up, without feeling he fully recognized the value of the test; for there is nothing, he very truly says, in which men differ more than in handwriting, and nothing which a man is less likely completely to lose, or even greatly alter, unless in sickness or old age; so far that is, of course, as its leading features are concerned. Put a man down to write whose identity is in question, and it will go a long way to settle any doubts there may be.* And in an earlier case, Cresswell *v.* Jackson, reported in the fourth volume of Foster and Finlason, the view of Cockburn, Chief Justice, as he then was; on the value of expert evidence is so fairly put that it may be adopted by all whose minds are not fully made up on the subject: 'The evidence of professional witnesses is to be viewed with some degree of distrust, for it is generally with some bias. But within proper limits it is a very valuable assistance in inquiries of this kind. The advantage is that habits of writing, as shown in minute points which escape common observation, are quite observable when pointed out; are detected and disclosed by science, skill, and experience. And it is so in the comparison of handwriting by the assistance of experts.'"

* Note, in this connection, the case of Theophilus Youngs, which supplements this chapter.—D. T. A.

In the courts of the United States, the cases in which expert testimony has figured conspicuously, and in which its value has been recognized by courts and juries, are very numerous. A few of the many cases will be found in detail, with illustrations, on other pages of this work. We here quote one of the more recent unpublished instances, where a very learned judge of the New York Supreme Court, the Hon. Edgar L. Fursman, in his charge to the jury, paid a fitting tribute to the value of the testimony of experts in a case that hinged chiefly on that class of testimony. We quote from the court stenographer's report: —

"THE COURT: The prosecution rely upon the evidence of three experts who have testified in your hearing. These experts united in the opinion that the letter which is charged in the indictment was written by the same person who wrote the letter to Judge Fitzgerald and the letter to Mrs. Bridgham, which have been put in evidence, and which the defendant's counsel has stated were written by the defendant. They give their reasons — two of them at considerable length — for arriving at this conclusion. Now, it is your duty to weigh the evidence of these experts, to see whether they are right, because the prosecution must satisfy you that he wrote it. Who are these men? They have been examined before you. They have given, to some extent, information concerning their studies and qualifications. They testify, two of them at least, that they have devoted comparatively long lives to the study of disputed handwriting; that they have examined disputed handwriting that has afterwards become the subject of litigation in a large number of cases. The other one is a teacher of handwriting and has devoted less years, as indeed he has seemed to have lived less years, to this very interesting study. Are their opinions reliable? Do they satisfy you that the man who wrote these two letters, the one to Judge Fitzgerald and the other to Mrs. Bridgham, is the same man who wrote Exhibit No. 1? They concur in the opinion that Exhibit No. 1 is written in a disguised hand, and it is apparent from the other two letters, the one to Judge Fitzgerald and the other to Mrs. Bridgham, that they were written with a lead-pencil, and with a free, offhand, accustomed movement, but they declare that they are able, by certain tests which they say they have found to be correct during their long study of this science, to identify characters in this letter with the characters in the two letters to which I have referred, and that such an

identification occurs in a large number of instances. Bringing down to a conclusion the result of their long experiences, and their examinations of these letters, they uniformly declare that they have no doubt that the same person wrote all three.

"Now, we know that the science of detecting handwriting is the subject of study by men who engage for pay in that pursuit. They expect, when they are called upon in courts of justice or elsewhere to make examinations and testify concerning them, to be paid for it. That is the business of their lives, as it is the business of life of a lawyer to get pay from his client for services, of a doctor from his patient, of a pastor from his congregation. Their pay, it may be justly said, I think, must depend largely upon the extent and character of their studies and the extent and character of their qualifications to speak; precisely as one lawyer may receive, and will receive, a large compensation for a case, while a lawyer of less reputation, of less study, of lower qualifications, doing the same work perhaps equally as well, can command only a much smaller sum.

"Now, these men testify before you that these letters were written by the same person. They say that they have no doubt of it. They declare that they have examined them critically. They have brought to bear upon it the experience of years, and the principles of their science, and all that study could qualify them to perform with relation to it, and they have attempted to give to you, and have given to you, what they claim to be their reasons for the result at which they have arrived. Are they right? Are you satisfied that they are right, beyond a reasonable doubt?

"MR. ATCHISON (counsel for defendant): If your Honor please, I except to that portion of your Honor's charge in so far as it concerns expert testimony given in this case. I respectfully request the Court to charge that direct evidence is stronger and is entitled to greater consideration than expert testimony.

"THE COURT: That I decline to so charge.

"Mr. ATCHISON: I except to the refusal, and I except to all refusals.

"THE COURT: That is, I decline to charge the last request under the circumstances of this case.

"The jury retired at 3:49 P.M., taking with them the exhibits, and returned into court at 4:18 P.M.

"THE COURT: I have received, gentlemen of the jury, from you this question. Of course, I cannot answer any questions by written communication. I have to bring you into court and have the prisoner and his counsel represented and the District Attorney:—'Did the

experts positively swear that the three letters, Nos. 1, 2, and 3, were written by the same person?' They swore that they had no doubt that they were written by the same person. Ames swears that they were—'In my opinion all three letters were written by the same person.' He says there is no doubt in his mind. Expert Kinsley testifies to the same, and that there is not a shadow of a doubt, I think, as he expressed it, that the same person wrote them all. That answers your question. I have not undertaken to give the exact language, but that is what they said in substance.

"MR. ATCHISON: I except to the further charge that your Honor has just made.

"THE COURT: I am not making any charge. I am answering a question that the jurors asked me as to what evidence the experts gave.

"MR. ATCHISON: I except to the remarks of the Court in response to the request.

"The jury retired at 4:21, and returned into court at 5:08, and stated, through their foreman, that they found the defendant guilty as charged in the indictment."

THE CASE OF THEOPHILUS YOUNGS.—It is probable that no case ever came before a New York Surrogate which attracted more attention from the press and the public than did that of Theophilus Youngs, which was tried before Surrogate Delano C. Calvin in 1881.

An application was made for the revocation of letters of administration which had been granted to Mary I. C. Youngs on the goods, chattels, and credits of Theophilus Youngs, alleged to be deceased.

The revocation was opposed, and met with a counter allegation that Theophilus Youngs was still living; and to the astonishment of the applicants, a man calling himself by that name appeared in the court, and was there identified, by his alleged brother and a fellow workman, as the Theophilus Youngs named in the letters of administration and the application for revocation. His identification was denied by his wife and numerous other relatives, each affirming that this man was not the Theophilus Youngs they had known, and the same as was named in the letters of administration and application. Some weeks of time was con-

sumed in taking testimony pro and con, and yet it was an open question as to "who was Theophilus Youngs." While upon the witness-stand the alleged brother was asked if he had any other means of proving the identity of Theophilus than his personal recognition, to which he replied that he had letters which he had received from him since the time of his alleged death, one of which, of considerable length, he produced. The genuineness of this letter was also denied by the applicant, whereupon the Surrogate directed the letter to be read to the claimant, and that he be required to rewrite the same. When the original letter with the copy thus made was placed in the hands of the writer with a request that he compare the same and report to the Surrogate as to the identity of the two writings, on submission of his report with the analysis of the writings sustaining the same, the identity was so completely proven that the Surrogate at once decided that the claimant was the real Theophilus Youngs.

CHAPTER IX.

SOURCES OF EXPERT KNOWLEDGE, AND WHO MAY GIVE TESTIMONY AS EXPERTS — THE LEGAL DEFINITION OF THE WORD "EXPERT."

ALL evidence of handwriting, except where the witness has seen the writing in question written, is derived from four sources: *First* — from comparison; *second* — from the internal evidence of the writing itself; *third* — from the knowledge of the writing, from having frequently seen a person write; *fourth* — where one has received letters whose authorship has been subsequently verified by admission, or acted upon in such manner as to receive the approval of the writer. Comparison is made between the writing in question and other writing admitted by the writer to be genuine, or otherwise proved to be so to the satisfaction of the court.

The evidence adduced from comparison is more or less certain according to the skill of the expert and the circumstances of the case. Internal evidence is such as is presented by the peculiar quality of lines when drawn or worked up by slowly following traced lines, retouched shades, rubbered surface of the paper, and every indication of an artificial or mechanical process of producing writing.

Testimony based upon a knowledge of writing gained from having at some time seen a person write, is the most fallacious of all testimony respecting handwriting; it can be only a mental comparison of writing in question with such a vague idea or mental picture as may remain from a casual view of the writing at some time more or less remote;

and besides, one may *perceive* another in the act of writing and yet have little or no opportunity of forming any mental conception of it, even at the time of writing. Yet the writer recalls an instance* where a witness was permitted to express his opinion as to the genuineness of a signature to a will, involving several millions of dollars, on his mere allegation that he had once, twenty-six years before, seen the testator write his name with a lead-pencil to a receipt while sitting in his carriage, which writing he had not since seen! Such testimony is a farce and mockery of justice — simply a bid for perjury.

Where one has had a long and intimate association with another in such a way that his writing has been a thing of daily observation, there may be such an acquaintance with it as to render one competent to express a valuable opinion respecting its identity. Yet no one, from simple observation, can come to know all the distinguishing characteristics of any handwriting, not even his own, as can a competent expert from an exhaustive study of it.

Indeed, the very fundamental basis of the identity of handwriting is in the unnoted, and hence unconscious, personalities of one's writing. A skillful simulation is as liable to deceive the author of the writing that is simulated as any other casual observer having a general familiarity with the writing.

WHO MAY TESTIFY AS AN EXPERT.—While the qualification necessary for the permission of a witness to testify in court as an expert is largely discretionary with the judge, such discretion is usually exercised with so great liberality that it is not often that a witness offered as an expert is refused by the court on the ground of deficient qualification. It is usually held that any one possessed of anything more than ordinary opportunity for studying or observing handwriting may give expert testimony, which

* A. J. Davis will contest, Butte, Montana, in 1891.

the jury may receive for what it is deemed to be worth. If on any previous occasion one has given testimony, that fact is usually accepted as a sufficient qualification, or if he has ever seen the person write whose writing is in question, he is deemed competent. With such limited qualification, it is no matter of surprise that expert testimony is sometimes made to appear at very great disadvantage. Incompetent and mercenary witnesses will seek employment, and since there are always two sides to a case, and on each side lawyers who spare no efforts for victory, there is a chance for every kind of witness, as there is for every kind of attorney.

DEFINITION OF EXPERT EVIDENCE.—Expert evidence is that given by one especially skilled in the subject to which it is applicable, concerning information beyond the range of ordinary observation and intelligence.

DEFINITION OF OPINION EVIDENCE.—Opinion evidence is the conclusions of witnesses concerning certain propositions, drawn from ascertained or supposed facts, by those who have had better opportunities than the ordinary individual or witness to judge of the truth or falsity of such propositions, or who are familiar with the subject under inquiry, and give their conclusions from the facts within their own knowledge concerning certain questions involved in the issue. In Ordesco Oil Co. *v.* Gilson, 63 Pa. St. 146, the Court observes, "An expert, as the word imports, is one having had experience. No clearly defined rule is to be found in the books as to what constitutes an expert. Much depends upon the nature of the question in regard to which an opinion is asked." (See also, for further definitions of experts, Page *v.* Parker, 40 N. H. 59; Jones *v.* Tucker, 41 N. H. 546; Boardman *v.* Woodman, 47 N. H. 134; Herald *v.* Thing, 45 Me. 392; Mobile Life Ins. Co. *v.* Walker, 58 Ala. 290; Slater *v.* Wilcox, 57 Barb. (N. Y.) 608.)

DEFINITION OF AN EXPERT.—An expert is one who has made the subject upon which he gives his opinion a matter of particular study, practice, or observation, and he must have a particular and special knowledge on the subject. We quote: Dole *v.* Johnson, 50 N. H. 454, "A person instructed by experience"; Hyde *v.* Woolfolk, 1 Iowa, 159, "An expert is a person that possesses peculiar skill and knowledge upon the subject matter that he is required to give an opinion upon"; State *v.* Phair, 48 Vt. 366, "An expert is one instructed by experience; and to become one requires a course of previous habit and practice, or of study, so as to be familiar with the subject"; Nelson *v.* Sun Mutual Ins. Co., 71 N. Y. 453, 460, "All persons, I think, who practice a business or profession which requires them to possess a certain knowledge of the matter in hand, are experts so far as expertness is required"; Van der Donckt *v.* Thellusson, 8 M. G. & S. 812; adopted in Bird *v.* State, 21 Gratt. (Va.) 800, "An expert is a person of large experience in any particular department of art, business, or science"; Dickens *v.* Fitchburg, 14 Gray (Mass.) 546, 555. Also, Burrill Herald *v.* Thing, 45 Me. 394; Nelson *v.* Johnson, 18 Ind. 334; Estate of Toomes, 54 Cal. 514; Travis *v.* Brown, 43 Pa. St. 12. See Rochester *v.* Chester, 3 N. H. 349, 365; Buffum *v.* Harris, 5 R. I. 250.

CHAPTER X.

EXPERTS SHOULD BE EMPLOYED BY THE COURT — THEY SHOULD BE ABLE TO MAKE PLAIN THE REASONS FOR THEIR OPINIONS — ILLUSTRATIONS SHOULD BE MADE BY PHOTOGRAPHS, OR WITH CRAYON UPON BLACKBOARD OR PAPER.

PROBABLY no judicial officer in this country has a better opportunity to observe and judge of the value of expert testimony than a surrogate of New York City. Forged wills and cases involving the question of the genuineness of handwriting are very frequently contested before him.

In rendering a decision respecting a contested will where experts had given testimony, Surrogate Calvin expressed the opinion, that "in all cases wherein expert testimony is required the expert should be employed and paid by the court, and be regarded as a court officer."

This would be wise, *first*, in that it would tend to the employment of none but really skilled and reliable experts, instead of, as is now often the case, pretentious humbugs; and *secondly*, there would be less liability of partiality or prejudice in favor of the side by which they are employed and paid.

At present experts are employed, paid, and so far as is possible influenced, by the party in whose behalf they are to testify, and frequently manifest all the energy and strategy of an attorney, magnifying and distorting facts upon their side of the case, while they withhold or belittle every fact favorable to the adverse side.

It should be the sole purpose of an expert to present impartially to court or jury the entire truth which he may

discover concerning any question about which he is called upon to testify as an expert, to the end that exact justice may be done.

No expert should permit himself to be *retained* in the sense in which an attorney is retained, viz., for the purpose of making the most of and winning a case, right or wrong.

Extreme care and caution should be exercised by an expert, that any conclusion he may reach is well founded. This he should be ready to show, by clear, strong, and convincing reasons. But should it at any time, or in any stage of an investigation, appear that he has been mislead in his own investigation, or by others, and has made an important mistake, he should not hesitate to correct the same, even though it involve an entire change of opinion, and necessarily of position from one side of the case to the other, and subject him, as it usually does, to all the base, mean, and false insinuations of treachery or mercenary motives which a knavish attorney can imagine or invent. An expert should never lose sight of the fact that his duty is that of an honest, impartial investigator, a judge rather than an advocate; and that he is to simply state facts as they appear to him, regardless of their bearing upon any side of the case; he should know no client or antagonist.

When the services of an expert are sought, he should, so far as is possible, avoid knowing the circumstances or the relations of the party asking his opinion as to the case. The fee for the examination and opinion should, as a rule, be paid in advance, and, by an explicit understanding, be the same whether the opinion be favorable or adverse to the party seeking it, and entirely independent of any future service.

The fact that an expert has made an examination and given an adverse opinion, should not debar him from giving testimony upon the right side of the case should he be

called upon to do so; but when such is the case, or when, from the discovery of new facts, a previously formed and expressed opinion is overthrown and his testimony is used by the adverse party, he should in no wise reveal a fact or circumstance bearing upon the case which was made known to him by the opposite party while in their confidence or service.

The late Judge Pratt, of the Supreme Court of New York, while charging the jury in a case where forgery was involved, said:—

"When an expert is sought to be employed who has no previous knowledge of the case, it will inspire him with confidence and give his evidence great weight if he will act in accordance with this rule, to wit: peremptorily refuse to be informed upon which side of the case his services are required until a full statement of the facts has been made and he has given his opinion thereon. He will then himself know that his opinion is unbiased by any consideration whatever. If this rule should be adopted as the settled practice by medical experts it would go far to dispel the prejudice that is oftentimes produced by a zealous and partisan manner upon the witness stand."

We believe that the above is the rule, so far as is practical, with every honorable expert. We know it is with most; but the bad feature of the expert business, as in all other things, is the fact, that it is not without its hungry charlatans, who, from knavery or incompetency, seek to appear as witnesses only to guess or falsify upon either side of any case in which they can procure their employment and get a fee. Of course, such advice as Judge Pratt offers is wasted upon that class of "professional" experts. So long as there is a mutual seeking between the charlatan witness for a fee, and attorney to sustain by any means a bad cause, expert testimony can and will be made to appear to juries and the world as strangely conflicting. It is this class of testimony, knavishly given and procured, rather than the occasional difference of opinion between skilled and honest experts upon evenly-balanced cases, which so often discredits expert testimony.

REASONS SHOULD BE GIVEN FOR ANY OPINION EXPRESSED.—I cannot conceive of an opinion worthy of consideration, for which a reason cannot be given; yet we have often heard such opinions given in court, and they have been accepted as expert testimony. When asked for his reason, one witness, a bank cashier, replied, "Oh! I am so impressed; I cannot tell why."

It is scarcely creditable to any witness to express opinions for which he can give no reasons, or to a court to permit such to be given as expert testimony. For how can court and jury place the proper value upon opinions unsupported by reasons? Indeed, the value of expert testimony consists mainly in the ability of the witness, by reason of his special training and experience, to point out to the court and jury such important facts as they might otherwise fail to observe; and in so doing, the court and jurors are enabled to exercise their own vision and judgment respecting the cogency of the reasons, and the consequent value of the opinion founded thereon. A skillful use of the blackboard and crayon, as well as photographs, may greatly aid in elucidating testimony which courts now almost invariably permit. In the absence of a blackboard, large sheets of paper may be used for illustrations, with a colored crayon.

Objection has sometimes been made to the use of the blackboard, on the allegation that thereby evidence was introduced which could not appear upon the court record, or be available in case of an appeal. The substitution of paper for blackboard overcomes this objection, since the paper with the illustrations may be preserved for future use.

Great care should be exercised that photographs be correctly made. The first requisites are that the writing to be copied be at exact right angles to the lens of the camera, that the lens be adapted to a perfect reproduction of a flat surface, and that it be in perfect focus. The photographic reproduction must then be absolutely perfect as to outlines and measurements. As to time of exposure, toning, and

finishing, these are dependent upon the skill and experience of the operating photographer.

Photographs may be used simply for purposes of illustration, not as evidence, when the original writing is present, that always being regarded as the best evidence. Photographs the same size as the original may be used, in which case there should be a sufficient number that each two of the jury at least may possess a copy, and also one for each of the attorneys, the court, and the witness — ten or more copies in all; or where the matter in controversy will admit, and especially in cases of contested signatures, greatly enlarged photographic copies may be of material aid by rendering more conspicuous the reasons alleged for any opinion expressed. Where signatures alone are under consideration, photographs may be advantageously enlarged to three or four feet in length; in which case they may be so placed that the expert may point out upon them to the court and jury the specific evidences upon which he has founded his opinion. The purpose of photographs presenting the writing in its natural size, in the hands of the court and jury, is that they may thereby follow the testimony of the expert, and by exercising their own eyes and judgment upon his alleged facts, be enabled to give to them their true weight as evidence in the case, irrespective of his expressed opinion.

CHAPTER XI.

DISGUISED AND IMITATED WRITING — CASE OF EVERETT *V.* WILKINSON ILLUSTRATIVE OF DISGUISED WRITING

ONE of the most frequent phases in which handwriting is brought into question is in various forms of disguise, often as anonymous letters. There are few communities that have not at some time been afflicted by the anonymous letter fiend — letters scurrilous, obscene, threatening, blackmailing, libelous, etc. Seldom, however, has it been, where the natural writing of their authors has been procured for comparison by skilled experts that the writers have been able to successfully conceal their identity through any considerable composition.

Of course, every conceivable method is resorted to for a disguise. Pen-printing, reverse of slope, change of pens, distortion of letters, introduction of new and grotesque types of letters, etc. But if the well-nigh infinite personalities that go to make up a natural and habitual handwriting, and the overwhelming power of acquired habit, which, as Dryden says, "is ten times nature," are borne in mind, the disguise will be easily penetrated and the true characteristics recognized.

To change the general appearance or pictorial effect of writing is very easy, and most people seeking to disguise their handwriting commit the fatal error of supposing that when they have, by any means, succeeded in making a radical change in the general appearance of their writing, that the disguise is complete and effective. It can be so only to the unskilled or casual observer,—as if by a change

of slope, implement, a few types of letters, and the introduction of a few distortions, a lifelong habit of writing, with its numberless unconscious details, can be entirely laid aside, and a new one, alike complicated, substituted! All who have struggled for years to acquire a handwriting, must realize, on slight reflection, that it does not come, as it were, ready-made, in that way.

With all the effort to disguise one's writing, the warp and woof will continue to be of the old habitual hand, through which the identity of the writer will be as inevitably manifest as he himself would be through any disguise of his person.

Not long since, in the comparison of a series of disguised letters with two genuine ones, together with the addresses upon the envelopes in which they were transmitted, it was observed that the habit of the writer was to place a dash of some sort under the last word written. This was found to be also a fact in the disguised writing. Notwithstanding the great effort made to disguise it, unconscious habit repeated the inevitable rubric at the end.

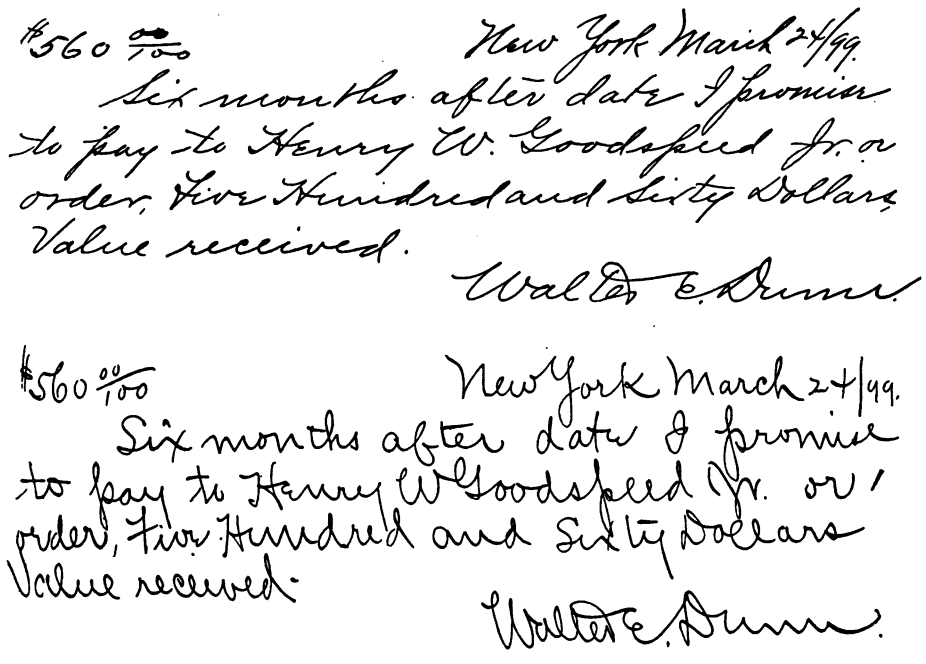
Disguised versus Imitated Writing.— In disguised writing the writer seeks to impart an appearance as unlike his own habitual writing as possible, and yet have the disguised writing legible. In imitated writing, the writer seeks to reproduce, as perfectly as possible, the habitual handwriting of another person. The effort at disguised writing fails from the inability of the writer to avoid his own unconscious and habitual characteristics.

In imitated writing, the writer fails from a twofold cause. He can neither avoid all his own unconscious habits, nor reproduce all those of the imitated writing; nor can he assume the unhesitating and natural facility with which natural writing is executed. In forged or imitated writing, the more obvious and conspicuous things become objects of special attention, and are therefore usually unduly emphasized, while the more numerous minor peculiarities go unobserved

and are substituted by those of the forger. In disguised writing, the reverse is true. The more conspicuous things will be known, and can therefore be omitted, while the multitude of minor and unknown peculiarities remain to betray the identity of their author.

In the following cut is represented, *first*, an habitual handwriting on a forward slope; *second*, the same hand with a back slope. It will be observed that while there is an entire change in the pictorial effect, the habitual characteristics are identical.

HABITUAL HAND.


$560 00/100 New York March 24/99.
Six months after date I promise to pay to Henry W. Goodspeed Jr. or order, Five Hundred and Sixty Dollars Value received.
Walter E. Drum

$560 00/100 New York March 24/99.
Six months after date I promise to pay to Henry W. Goodspeed Jr. or order, Five Hundred and Sixty Dollars Value received.
Walter E. Drum

A Case in Point.—The case of Everett *v.* Wilkinson, lately tried in Jersey City, N. J., is presented as a specimen of anonymous and disguised letter-writing. Both parties were well-known practicing physicians, and the case attracted widespread attention. A considerable number of very offensive anonymous letters were received by a druggist, reflecting seriously upon the character and profes-

sional skill of one Dr. Everett. Circumstances led Dr. Everett to attribute their authorship to a certain limited number of persons, among whom was Dr. Wilkinson. Measures were taken which resulted in securing the writing of several suspected parties. These specimens were submitted with the anonymous letters to the writer, who selected the writing of Dr. Wilkinson as being the same as the disguised writing of the anonymous letters. After a hotly-contested trial, Dr. Everett was awarded damages to the amount of $2,500, which was paid.

In these cuts are presented a few of the coincident characteristics presented in both the standard and disguised writing: —

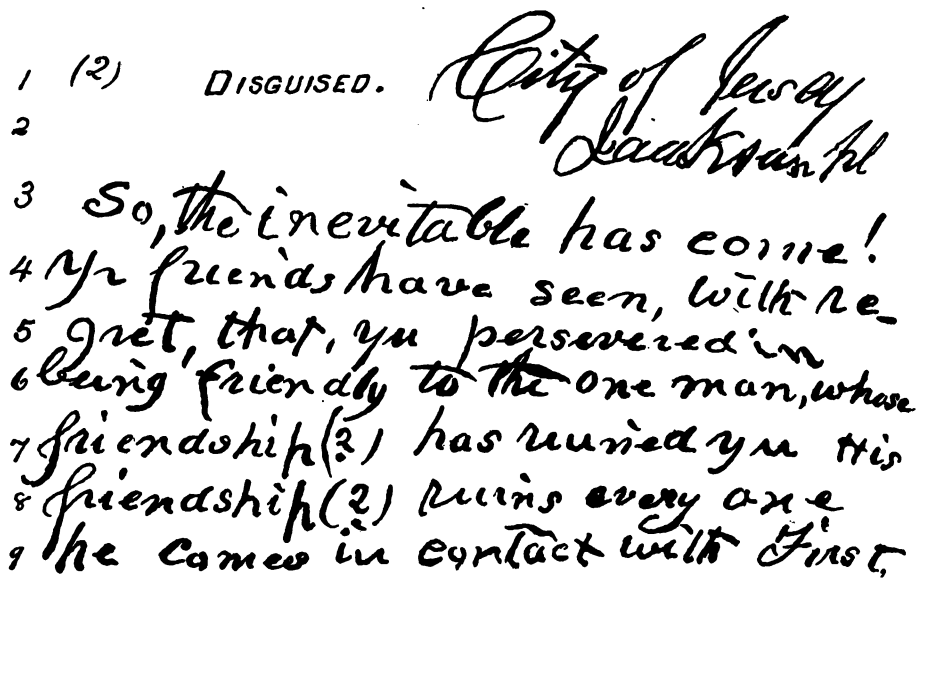
(1) GENUINE.

April 13

1 Mrs Vandeschmidt —
2 My Collector did not
3 tell me a word about
4 your reception of him
5 untill to day —
6 Have you forgotten
7 the Care which Dr
8 Geo and I gave
9 your husband when
10 he was cut open?

Cut (1) represents a portion of an admittedly genuine letter and cut (2) represents a portion of a page of the disguised writing proved, by expert testimony, to have been written by the same person.

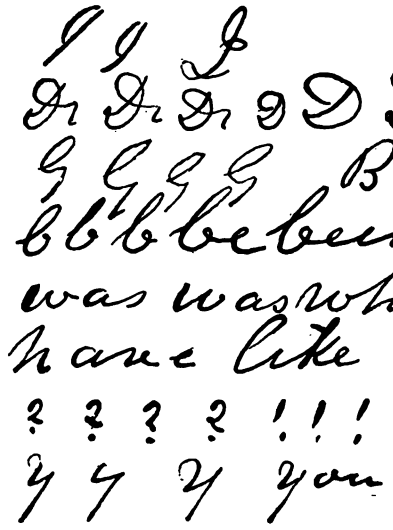
Respecting cuts (1) and (2), we consider first the mechanical arrangements of the writing. There were involved in the case three genuine letters and four in a disguised hand. In all instances the letters commence with the date located at the extreme top and right; marginal arrangements were the same. It will be observed that instead of dividing words at the right margins with a hyphen, they frequently extend downward on the extreme edge of the paper. Comparing the writing of (1) and (2), observing first the crossings of the *t*'s, which are curved shaded lines near the top of the letter. An example is in (1), line 7, and (2), line 3. Note the letter *w* in (1), lines 3, 7, 9, and 10, as compared with corresponding letters in (2), lines 4 and 6; also the letter *b* in (1), lines 3 and 9, has a round, full bulb, finishing with a large loop; corresponding letters in (2), lines 3 and 6. The letter *h* in (1),


1 (2) DISGUISED. City of Jersey
2 Saturday
3 So, the inevitable has come!
4 Yr friends have seen, with re-
5 gret, that, yu perseverd in
6 being friendly to the one man, whose
7 friendship (?) has ruined yu His
8 friendship (?) ruins every one
9 he comes in contact with First,

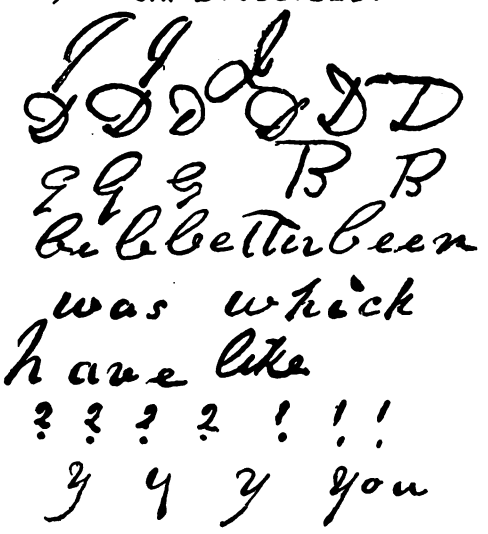
lines 1, 4, 7, and 9, up-stroke beginning at base line connecting with staff at top; corresponding letters in (2), lines 3, 4, and 6. The letter *r* at the beginning of the word in (1), line 4, is conspicuously large, beginning with a compound curve at the base line; the same letter is in (2), lines 4 and 8. The interrogation point in (1), at the end of line 10, is the same as those of (2), in lines 7 and 8. The word "the" in (1), line 7, is characteristically the same as "the" in (2), line 6.

These are but few of the many coincident characteristics that are present in the three genuine letters as compared with the four disguised.

(3) FROM GENUINE.



(4) FROM DISGUISED.



In cuts (3) and (4) are collected and placed in juxtaposition several examples of the more striking personalities as they appear in the genuine and disguised writing. In cut (3) are two kinds of *J*'s. One made with two separate strokes, and another with one continuous stroke. At the very beginning of the disguised letter, cut (2), in the first line, is a *J* made with two strokes, while in the second line it is made continuously.

Two different characteristic types of the same letter in two alleged different writings count very much in expert examinations, because, while it is not uncommon that two different persons fall into the habit of making one form of a letter approximately the same, it is very uncommon that they should each develop two highly personal forms alike for the same letter or combination.

In line 2 of cut (3) are several capital *D*'s selected from the genuine writing; opposite are several selected from the disguised writing, and so on to the end of the cut. It will be found that the letters and words selected from the genuine writing are characteristically the same; yet while intermingled in the page of disguised writing their identity is so changed and obscured as not to be discernible except on close scrutiny and comparison.

In their pictorial effect there is no observable resemblance between the genuine and the disguised writing more than between a white and a black man, yet mainly on expert testimony the identity of the anonymous writing was so very thoroughly demonstrated as to secure a large verdict as damages against the author for criminal libel.

CHAPTER XII.

CERTAINTY OF CONCLUSIONS REACHED THROUGH EXPERT COMPARISONS OF WRITING — MUST VARY IN DEGREE, WITH THE CIRCUMSTANCES OF EACH CASE — THE GENUINENESS OR UNGENUINENESS OF WRITING IS NOT DETERMINED BY ANY ONE THING, BUT BY A SERIES OF INSTANCES WHERE THE TRUE CHARACTERISTICS ARE PRESENT OR ABSENT, AS THE CASE MAY BE — EXAMPLES: A BANK CASE IN NEW YORK, AND THE BIRD CASE, LOS ANGELES, CALIFORNIA.

WHERE a handwriting is brought into question, it is rare that any one thing can determine the point at issue. It is usually by a more or less extended series of things, the presence or absence of which creates the decisive preponderance of evidence.

Of course, each case admits of a more or less certain conclusion, according to its own peculiar circumstances. It often happens that there is such a deficiency in the character or extent of the writing, either of the known or unknown, as not to furnish a satisfactory basis for study and comparison; that is to say, there are present too few of the real characteristics of either one or both of the writings to enable even a skilled expert to form a well-sustained opinion. Only a word, or paragraph, carelessly scrawled perhaps with a pencil, may be brought in question, to be compared with other writing with pen and ink. Again, a long period of time may intervene between the date of the writings which are to be compared, in which the standard writing may have undergone material change, and sometimes the skill

of the forger is so great as to nearly baffle that of the expert. These circumstances, however, are the exception.

Some handwritings are characterized by few or no striking peculiarities that radically distinguish them from one another, and may be casually mistaken in their identity, while other writings consist of a continuous series of extravagant eccentricities such as to cause them to stand out as grotesque, unique, and unmistakable among other writings as would a dime museum freak among other persons.

It follows that the personality of some handwritings, like some physiognomies, is more marked and unmistakable than that of others, and the more rare and exceptional are the characteristics either of the person or of the writing, the less liable are accidental coincidences between them and others, or that any mistake can occur respecting their own identity. As these peculiarities multiply, either as to writing or the person, the chance of their recurrence in another diminishes on a ratio far beyond the simple law of permutation. Suppose, for example, that among ten thousand persons there is one hunchback, one person minus a right leg, one person minus a left arm, one person with one eye, one person with a broken nose. To find one person having *two* of these peculiarities would require probably one hundred thousand people; *three* of them, a hundred millions; *four*, a thousand millions, while one having all five might not be found in the entire fourteen hundred million people on earth. While it cannot be positively alleged that no one person can possibly possess all these peculiarities, the improbability is so great as to invade the realm of the impossible. Precisely so it is in the comparison of a handwriting.

As we have said, one peculiarity does not decide. It simply counts for what it may be worth; *two* count not twice as much, but many fold more, and so on. By each added

peculiarity the strength of the evidence is multiplied far beyond the rule of geometrical progression; and although a point may not be reached where it can be said that all of a series of like or different characteristics, as the case may be, could not possibly occur, the probabilities for or against the accidental recurrence of all the series is such as to justify decisive judgment. Again, the degree of certainty may be likened to the throwing of dice. Double aces may be thrown once without comment. Thrown twice in succession, there is an exclamation of surprise. Thrown three times, Whew! Thrown four times, By Jove! Thrown five times, comes a shout of fraud, loaded dice, etc. Yet who can say it is impossible that double aces might not be thrown the fifth consecutive time; and having been thrown five times, why not the sixth, seventh, and so on indefinitely? Yet who would not soon act decisively on the improbability?

It is sometimes alleged in disparagement of conclusions reached from comparison of handwriting that no one can be absolutely certain of anything he has not seen. If one sees the track of a horse, he knows that it was made by a horse and not by a dog. We do not see the earth revolving upon its axis, but we know it does revolve. Indeed, eliminate from the knowledge of the world all that of which we can have no visual perception, and only a skeleton of what the world accepts and constantly acts upon would remain.

Illustrative of the foregoing we herewith present a number of facsimile signatures. The top one is the forgery; the three following are the genuine standards used for comparison. The characteristic differences are indicated by numerals along the disputed signature, the series extending from one to thirty.

The case which is presented by the accompanying exhibit was tried some years ago in New York. The First National Bank of New York brought suit against the First

National Bank of Trenton, N. J., to recover nearly five thousand dollars, on a draft having the disputed signature. The plaintiffs alleged its genuineness and produced several bank cashiers and presidents, who testified accordingly, while the Trenton bank officials defended on the ground of forgery. Strong circumstantial evidence tended to establish the genuineness of the signature, while expert testimony against its genuineness was nearly unsupported, but the verdict was very properly for the defense.

FORGED.

STANDARDS.

1. The heavily shaded and nearly closed initial hook in place of one open and unshaded or absent in the genuine.

2. The more straight parallel lines forming a thinner loop to the *C*.

3. The lower, heavier, and better graduated shade in the down stroke of the *C*.

4. The more symmetrical main oval of the *C*.

5. The differently formed and unshaded inner oval.

6. The shortened stroke of the *W* with a sharp closed angle at the top.

7. The long, large blind loop at the bottom.

8. The very round, full turn at the top of the last turn in the *W*, and also its heavy shade and elevation above the base line.

9. The final, conspicuous, nice, artistic, angular finish to the *W*, which strikes the staff of the *h* below the up-line that forms the loop, showing a break in the up-line of the loop.

10. In the disproportionate height of the *h* to that in genuine signature.

11. The parallel lines in loop of *h*.

12. The more heavily shaded and lifted staff of the *h* at its base.

13. The larger, more rounded second member of the *h*, and its high closing on the staff.

14. The very large *i* and round turn to the base.

15. The formed loop of the *t* from a very short turn at its top, a sharply curved down-stroke crossing the up-stroke low down toward the base of the whole letter, above the base line.

16. The thin line and full loop of the *e* lines crossing close to its base and above the base line.

17. The disproportionate height of the *t*, *e*, and *h*.

18. The horizontality of the connecting line from *e* to the *h* and the wide space between the letters.

19. The peculiar parallelism of the top of the *h* and the shortness of its staff.

20. The peculiar obtuse angle and artistic and retouched shade in the finish of the *h*.

21. The peculiar manner in which the *h* connects into the *t* by a horizontal curve above the base of the *e*.

22. The conspicuous size of the loop of the *e*.

23. The very long turn connecting *e* to *a*.

24. The small double-looped *a*.

25. The horizontal connection of the *a* into the *d*.

26. The up-line of the *d*, which changes its direction on the staff of the *d*, showing that the pen was lifted at the point.

27. The very large symmetrical loop for the staff of the *d*.

28. The conspicuous and artistic shade of the down-stroke of the *d*.

29. The very large symmetrical oval formed by the terminal sweep of the *d*.

30. The long-extended, horizontal, and elevated terminal of the *d*.

In addition to evidence adduced from the analysis as here given, were manifest under the microscope several instances where the forger, having failed in his first writing to produce the desired form of shade, had retouched the lines in a manner unnecessary to, and inconsistent with, genuine writing. Any legible form serves the purpose of genuine writing, but not so to the forger, intent on reproducing an exact model.

It is often sought, on a cross-examination of an expert, to overthrow the conclusion reached by such a comparison as is here represented, when there is a sufficient range of standard writing, by searching it for exceptional forms which approximate to one of those pointed out in the comparison, and if one or more is found, it is argued that the conclusions reached from the comparison are thereby over-

thrown. The fallacy of this is illustrated by the supposition of the peculiarities of five persons being all present in one person, or in the dice-throwing, as if out of a hundred throws, all those of double aces should be counted as so many consecutive throws. The thing is to find present in any one known genuine signature all or any considerable portion of the exceptional peculiarities present in the single one in contest.

THE BIRD CASE.—Bird was convicted of forgery at Los Angeles in July, 1899. The trial attracted considerable attention from the press and the public. Bird was the private secretary of G. J. Griffith, an extensive and wealthy real-estate holder and dealer, and had the full confidence of his employer, being intrusted with the entire charge of the affairs of his office, as bookkeeper and cashier. Before detection, Bird had forged Griffith's name to checks aggregating several thousand dollars, on which he had received the cash from the First National Bank of Los Angeles, where Griffith kept his account. Bird was well known at the bank where, as Griffith's secretary, he frequently made deposits and procured cash on Griffith's checks. The forgery was written free-hand, and in its general pictorial effect was a very close simulation of Griffith's genuine signature; but as is inevitable to a free-hand forgery, certain peculiarities in forms of letters, their combination and shade, were overlooked by the forger, and his own unconscious habit was injected into their places. Griffith threw out the checks, chiefly from his knowledge of not having signed checks for such amounts in favor of Bird at the time of their dates. The suspected signatures were submitted to A. W. Seaver, a well-known local expert, who decided them to be forgeries. Bird was indicted and brought to trial. He was ably defended by Ex-Judge Dillon of Los Angeles. The trial continued over two weeks. He had a powerful ally in the

bank which had cashed the forged checks, for there was pending a civil suit brought by Griffith against the bank for the recovery of the amount of the forged checks. It was alleged by Griffith that the aggregation of the forgeries was far greater than the amount of the checks which came into Griffith's possession, as Bird, while acting as secretary, received all the returned checks from the bank, and thus had opportunity to destroy any that he had forged. At the trial the writer was called by the District Attorney to give testimony in the case. Herewith are presented cuts of five of the forged signatures, with an equal number of genuine. Along the first forged signature we have placed numerals from 1 to 16, indicating as many of the leading failures of the forgeries to present the proper characteristics of the genuine signatures. Photographs were placed in the hands of each of the jury, while their differences were pointed out and illustrated upon a blackboard, thus enabling the jury to exercise their own vision and judgment as to the truthfulness and value of the reasons presented to sustain the expert's opinion that the signatures were forgeries.

1 calls attention to the more formal and horizontal start of a more curved up-stroke to the *G*.

2 notes the more round, shaded, horizontal, and symmetrical turn at the center of the *G*.

3 notes the more angular and heavy shades at the top of the *J*.

4 notes the larger, more symmetrical lower loop to the *J*.

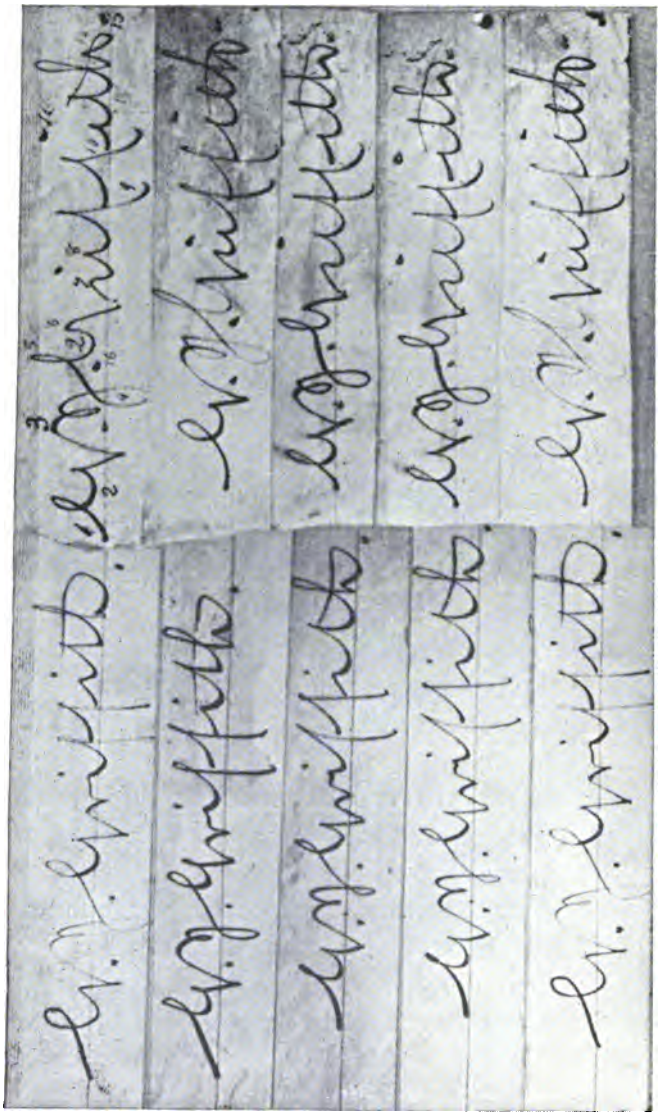
5 notes the more extended and symmetrical upper loop to the *G*.

6 notes a right curve at the top of the second member of the *G*, which is the reverse of the genuine.

7 and 8, taken together, represent the *ri* in such form and relation as to form a letter *u*, while in the genuine it would be *vi*.

9 represents a low, round, dishing shade at the bottom of the *ff*.

10 and 11 represent a heavy shaded right curve as an initial to the *i*, which letter is in the form of an *e* as against an *i* with a straight unshaded initial, while the letter has an open angle at the top.



12 represents a *t* with a closed or looped staff, as against an open and pointed staff in the genuine.

13 represents the very round, shaded turns at the base of the *i* and *t*.

14 notes the sharp turn at the base of the last part of the letter *h*, which sweeps upward and back so as to serve as a cross to the *t*. The terminal and last stroke of the *h* presenting the form of *lo* as against the broad turn at the base and high sweep in the genuine.

15 refers to the punctuation points, which in the forgeries are conspicuously large, and are on or above the base line, while they are smaller and below the base line in the genuine.

16 notes the large, high dots to the *i*'s as against the smaller and lower-down dots in the genuine.

Many other minor differences were pointed out to the jury.

As was stated by the expert to the jury, while no one of these variances might be sufficient to sustain the allegation of forgery, such a long series of variances from Mr. Griffith's habit of writing, with marked uniformity running through a number of disputed signatures, constituted the most conclusive proof of forgery.

Taken as groups, the forgeries are as consistent as a family as are the genuine, but no one of the signatures in either group could be a consistent member of the other family.

CHAPTER XIII.

WHY EXPERTS DIFFER IN THEIR OPINIONS—NOT ALL WHO GIVE TESTIMONY AS EXPERTS ARE QUALIFIED TO DO SO — OFTEN THROUGH THE SEEKING OF ATTORNEYS, INCOMPETENT OR MERCENARY WITNESSES ARE EMPLOYED AS EXPERTS TO DISPARAGE THE TESTIMONY OF SKILLED AND HONEST EXPERTS.

NOT infrequently it is pointed out, with a view to disparage expert evidence, that experts radically disagree in their testimony,—one appearing on one side of a case and one on another,—and from this it is argued that such testimony is of slight value. A moment's serious consideration of this contention should be sufficient to establish its unfairness, and the absurdity of the point of view. In the first place there are experts and "experts."

> "As hounds and greyhounds, mongrels, spaniels, and curs,
> cleped all by the name of dogs."

The court has a right to pass upon the qualifications of an expert witness, and very properly decides such questions with the broadest possible latitude. A man who has devoted a long life to the scientific investigation of a particular subject is permitted to testify as an expert precisely upon the same plane as a man who can swear that he is familiar with a particular signature by reason of having observed it a few times on a bank check. Apart from this, it is not difficult to imagine that the inducement for dishonest testimony in cases involving large sums of money (as a large proportion of forgery cases do) often constitutes a very seductive bait to alleged "experts" with more or less elastic consciences.

But wholly apart from any consideration of mercenary

motive, impropriety, or ignorance, is it in any measure unreasonable that on any conceivable question of fact men who are both skillful and honest are liable to disagree on one or another point? In most cases, where expert handwriting testimony plays an important part, it is practicable to produce genuine and undisputed handwriting in amount sufficient to afford a proper comparison on all or practically all the important points involved. In such cases, assuming both skill and honesty, there is really no ground for radical differences of opinion in expert testimony. Yet there are cases in which it is difficult, or it may be impossible, to secure proper standards of comparison — cases where the forgery appertains to a single signature, or even a single word, and it may be that the forger is not even suspected. Assuming these conditions, and adding to them a superior degree of skill on the part of the forger, there is presented a case that, while it may not actually deceive the expert, may render it very difficult for him to seize enough important points to make his exposition conclusive to the lay minds of a jury. Indeed, such cases may present points pro and con so delicate and shadowy in their nature that men of fairly equal skill may differ in their conclusions with respect to them. But who shall lay this up as an argument against the worth of expert testimony? There is no calling in life, however intellectual or advanced or profoundly scientific, in which men of undoubted integrity do not differ somewhat, not only in opinions, but on questions of pure fact. Eye-witnesses to ordinary occurrences, people whose veracity is beyond reproach, often differ as to exact details as to what took place.

To make my contention in this matter absolutely clear, we will take it for granted that a man would recognize an intimate friend when meeting him on the street. This he does not only by a likeness of his friend (which includes his carriage and gestures), but also by the apparel which has become identified with him. Now, if the friend should

radically change his style of apparel — say, from the usual dress of an American citizen to the national costume of a Turk or Hindoo — he would be identified with much less readiness, and it is not at all improbable that he might be passed on the street without recognition. In other words, many of the points of identification would have been concealed; yet a fair, square look at the face would doubtless penetrate even this disguise.

Now, suppose that instead of meeting this friend face to face on the street, he should be seen in this disguise at a distance of one or two blocks or more. The probability of identification would be greatly lessened. Even at a distance beyond the point where a glance at his familiar features might dispel the masquerade, it is quite conceivable that some habit of gait or gesture might betray the real identity. But after all there comes a point of remoteness where neither appearance nor gesture would be sufficiently marked to tell any definite story — a point where distance would obliterate familiar lines and where even without any unusual disguise no man could swear with positiveness that the one seen was his friend.

It sometimes happens, also, that experts disagree because of circumstances shaped by designing and tricky attorneys. A case in point was where the question at issue was as to the identity of five entries of alleged fictitious names, with residence, upon a hotel register. An expert was called to prove the identity of this writing by comparison with known writing. For this purpose he used for standards several long letters and superscriptions upon envelopes, which presented material in extent and kind sufficient to enable an expert to gain a full understanding of the practical habit of the writer. Obviously, this was precisely the kind of material proper for comparison with that in question, in the form of a fictitious name and address, which bore little evidence of attempt to disguise, it being freely written; while, upon the other hand, experts were called to deny this

identity from a comparison of the fictitious entries in disguised writing simply with business autographs of the alleged writer signed upon checks. In the range of writing presented upon the one hand was every letter and combination, many times over, that was represented in the fictitious names and address, while the check signature was not only monagrammic in its character, but presented few of the letters and none of the combinations presented in the writing in question, and hence failed to present adequate and proper material for comparison, and any expert forming an opinion from such a comparison would be very likely to be in error, as proved to be the fact in this case, from subsequent admissions of the person charged with the writing.

Another, and the most frequent cause of contradictory opinions of experts, is found in the persistent effort of over-zealous or mercenary attorneys. There have been few instances where skilled and honest experts have been called to sustain a just cause, that opposing attorneys have not persistently sought some one or more persons, usually as many or more than are called on the adverse side, who can qualify before the court as experts to contradict the testimony given by those employed upon the other side, and frequently, in desperate cases, the more mercenary, incompetent, and ridiculous these witnesses may be made to appear, the better they serve the purpose for which they were called, namely, the bringing of the whole idea of the expert testimony under ridicule and contempt, and thus destroy that which tends to reveal the truth, from which crime can never profit. And then, with ridicule and epithets, the attorney appeals to the jury against this nefarious sort of testimony; here, "as you gentlemen of the jury can plainly see," is one set of hired experts who say it is, and another set, with equal positiveness, say it isn't. What is such testimony worth?

It often happens that persons are permitted to testify as

experts who are without valid claims to being experts. Because a man is a writing-master, an artist, an engraver, or a bank-teller, does not by any means make him an adept in discovering and explaining forgery. And the assumption that all these classes of persons are experts, and permitting them to qualify as such, is responsible for much of the unfavorable comments by courts and the press upon the uncertain and contradictory character of expert testimony.

It is a trite saying among the legal fraternity that "an attorney with no case" abuses the witness. Especially are expert witnesses the object of their wrath in desperate cases. By denouncing experts as hired perjurers who testify for pay, etc., unscrupulous attorneys frequently endeavor to divert the jury's attention from the real points at issue and to create prejudice that will operate in their favor. Of course, it behooves the witness to preserve an unruffled demeanor; and if he conducts himself properly, in nine cases out of ten, the unwarranted attack upon him will prove a boomerang to the attorney. It is well to remember, too, in this connection that the lawyer with a bad case has no use for a skilled and truthful expert.

Another trick often resorted to by unscrupulous attorneys in charge of a case that has been riddled by expert testimony, is to introduce in rebuttal one or more alleged experts to swear just the other way. For this purpose, "any old witness" who can possibly qualify by reason of having taught writing-school, or having seen the principal in the case actually write, or having handled his writing, is a good enough witness, and the more of that sort they can introduce the better it serves their purpose—the obvious aim being to perplex the jury, and discredit expert testimony. Granted an intelligent lawyer on the other side, however, with even an ordinarily intelligent jury, and efforts of this kind are not likely to cause a miscarriage of justice.

CHAPTER XIV.

INSERTED SHEETS IN DOCUMENTS — ADDED OR CHANGED ENTRIES IN BOOKS OF ACCOUNTS — INK AND PENCIL ERASURES — IDENTIFICATION OF TYPEWRITING.

It is not an uncommon occurrence that wills and other public documents are changed by the insertion of extra or substituted pages, thereby changing the character of the instrument. Where this is suspected careful inspection of the paper should be made — *first*, as to its shade of color and fiber, under a microscope; *second*, as to its ruling; *third*, as to its water-mark; *fourth*, as to any indications that the sheets have been separated since their original attachment; *fifth*, as to the writing — whether or not it bears the harmonious character of the continuous writing, with the same pen and ink, and coincident circumstances, or if type-written, whether or not by the same operator or the same machine. It would be a remarkable fact if such change were to be made without betraying some tangible proof in some one or more of the above enumerated respects.

Books of accounts are often changed by adding fictitious or fraudulent entries in such spaces as may have been left between the regular entries or at the bottom of the pages where there is vacant space. Where such entries are suspected, there should be at first a careful inspection of the writing as to its general harmony with that which precedes and follows, as to its size, slope, spacing, ink and pen used, and if in a book of original entry, the suspected entry should be traced through other books, to see if it is properly entered as to time and place, or *vice versa*. If a sus-

picious entry is found in a book of subsequent entry, it should be traced and verified in every respect through the books of previous entry. Such an examination will rarely fail to determine the integrity or otherwise of any suspected entry. The writing of such entries is likely to differ from the adjacent writing in size, slope, spacing, facility, and shade of ink.

When books are fraudulently made up, many entries, and even pages, are likely to be written continuously at one writing without the customary change of pen and ink or their change of condition; and hence the constantly varying conditions and circumstances of the writer, which must be manifest as between entries written from time to time according to the exigencies of business, will not appear. The books, too, will not show the soil and wear and tear necessarily incident to the constant and frequent handling in making daily entries and the frequent references necessary in business. Suspected books skillfully examined upon the above-mentioned points must certainly betray unmistakable evidence of fraud if it exists.

Ink and Pencil Erasures.—It is probable that ink erasures are more frequently made with a sharp steel scraper and ink-erasing sand rubber than otherwise. By these methods the evidence is—*first*, the removal of the luster or mill-finish from the surface of the paper; *second*, the disturbance of the fiber of the paper, manifest under a microscope; *third*, if written over, the ink will run or spread more or less in the paper, presenting a heavier appearance, and the edges of the lines will be less sharply defined; *fourth*, if erasure is made on ruled paper, the base-line will be broken or destroyed over the scraped or rubbed surface; *fifth*, the paper, since it has been more or less reduced in thickness where the erasure has been made, when held to the light will show more or less transparency. When erasures have been thus made, the surface of the paper may

be resized and polished, by applying white glue, and rubbing it over with a burnisher. When thus treated it may be again written over without difficulty. When erasures have been made with acids, there is a removal of the gloss, or mill-finish; and there is also more or less discoloration of the paper, which will vary according to the kind of paper, ink, and acid used, and the skill with which it has been applied. If the acid-treated surface is again written over, the writing will present a more or less ragged and heavy appearance, if the paper has not been first skillfully resized and burnished. It is very seldom that writing can be changed by erasure so as not to leave sufficient traces to lead to detection and demonstration through a skillful examination.

Upon hard uncalendered paper erasures by acid when skillfully made are not conspicuously manifest, nor when made upon any hard paper which has been "wet down" for printing, since the luster upon the paper would be thereby removed, and, so far as the surface of the paper is concerned, there would be no further change from the application of the acid. This applies to a wide range of printed blank business and professional forms.

IDENTIFICATION OF TYPEWRITING.—Since typewriting has come so generally into use, the question often arises as to the identity of writing by different operators as well as that done on different machines. This may usually be done with considerable degree of certainty. Different operators have their own peculiar methods, which differ widely in many respects,—in the mechanical arrangement, as to location of date, address, margins, punctuation, spacing, signing, as well as impression from touch, etc.

The distinctive character of the writing done on different machines is usually determined with absolute certainty. With most machines there are accidental variations in alignment. Certain letters from use become more or less

imperfect, or become filled or fouled with ink. It is highly improbable that any one even of these accidents should occur in precisely the same way upon two machines, and that any two or more should do so is well-nigh impossible. It is equally certain that all the habits and mannerisms of two operators would not be precisely the same. A careful comparison of different typewritings in these respects cannot fail to determine whether they are written by the same operator or upon the same machine. It should be remembered that writing upon the same machine will differ in all the respects mentioned at different stages of its use and condition.

CHAPTER XV.

THE FREQUENCY OF FORGERY — LARGELY AGAINST ESTATES — SEVERAL INGENIOUS AND INTERESTING CASES CITED AND ILLUSTRATED — THE FULLER CASE, IN NEWPORT, VERMONT — THE MISER RUSSELL CASE, IN NEW YORK CITY — A FORGED NOTE AGAINST THE JACOB ERWIN ESTATE, JERSEY CITY, N. J. — FORGED NOTES AGAINST THE GILLESPIE ESTATE, WARSAW, N. Y.

FEW persons outside of the legal fraternity are aware of the frequency with which litigations arise from one or another of the many phases of disputed handwriting; doubtless most frequently from that of signatures to the various forms of commercial obligations or other instruments conveying title to property, such as notes, checks, drafts, deeds, wills, etc. To a less extent the disputed portions involve alterations of books of account and other writings, by erasure, addition, interlineation, etc., while sometimes the trouble comes in the form of disguised or simulated writings. A disproportionately large number of these cases arise from forged and fictitious claims against the estates of deceased people. This results, first, from the fact that such claims are more easily established, as there is usually no one by whom they can be directly contradicted; and secondly, for the reason that administrators are less liable to exercise the highest degree of caution than are persons who pay out their own money. Over eighteen hundred cases of questioned writing in its various phases have come under the inspection of the writer within the past thirty years, and over twelve hundred have been litigated in courts of justice. In some instances these claims rest

upon the alleged genuineness of a single signature; in others, where it was necessary to show some peculiar consideration for the claim, whole series of papers and letters have been forged, sometimes simply in the disguised hand of the forger, then again in the simulated style of other persons.

In one case with which the writer is familiar a note for $10,000 was presented against the estate of a wealthy bachelor by a widow, who alleged that the note had been given in consideration of her marriage engagement with the deceased, which only failed of consummation through his unexpected death. In vindication of her claim she produced numerous letters, couched in terms of endearment, which she alleged she had received from him prior to and during their engagement. These letters, all but two of which related to purely business transactions, were demonstrated by experts to have been forged simulations of his writing by the claimant, as was the signature to the note, the body being confessedly in her own writing.

As another instance, a woman presented a claim for some $30,000 against the estate of a millionaire, for money alleged to have been placed in the hands of the deceased some years before for investment and safe-keeping. As vouchers for her claim she produced a receipt and contract, alleged to have been drawn by her lately deceased attorney, and signed by the testator, setting forth explicitly the terms of payment of principal and interest. The executors of the estate also received through the mail a long series of letters, purporting to have been written by several different unknown parties, tending to support this claim against the estate. The receipt, contract, and all the letters, together with several letters admittedly written by the claimant, were placed in the hands of the writer for examination and comparison, when it was demonstrated that every line of the writing in the letters, receipt, and contract, as well as their signatures, were written by the claimant in a forged or disguised hand, and that the whole claim was a very skillful fabrication.

It transpired from the testimony in the case that the claimant had for quite a period of her life been a professional teacher of writing, and that subsequently she gained a livelihood by writing novels. Thus the romancer and artist conspired in a most ingenious scheme of forgery.

In all instances where a forgery extends to the manufacturing of any considerable piece of writing, it is certain of being detected and demonstrated when subjected to a skilled expert examination; but where forgery is confined to a single signature, and that perhaps of such a character as to be easily simulated, detection is ofttimes difficult, and expert demonstrations less certain or convincing. Yet it is the writer's experience that the instances are rare in which the forger of even a signature does not leave some unconscious traces that will betray him to the real expert, while in most instances forgery will be at once so apparent to an expert as to admit of a demonstration more trustworthy and convincing to court and jury than is the testimony of witnesses to alleged facts, who may be deceived, or even lie. The unconscious tracks of the forger, however, cannot be bribed or made to lie, and they often speak in a language so unmistakable as to utterly defy controversion.

Such a case was that of the forgery against the estate of Warren Fuller, tried not long ago at Newport, Vermont, where a paper had been presented to the executors of an estate purporting to be signed by the testator, in which he promised to pay several obligations, of some twenty-five years' standing, and which were long since then barred by the Statute of Limitations. This paper was alleged to have been signed by the testator only a short time before his death. The claim was disallowed by the executors on the ground that it had been paid, and also from a disbelief in the genuineness of the signature it bore. The claimant appealed from the decision of the executors, and the case was tried in the County Court. That the reader may better appreciate the appended synopsis of the court proceed-

ings, compiled from the report of the Newport *Express-Standard* of February 15th, we reproduce the signature to the renewal paper, together with three other admittedly genuine signatures, which were used as standards for comparison.

Signature in Question.

Warren Fuller

Genuine Signatures.

Warren Fuller

Warren Fuller

Warren Fuller

It was set up in behalf of the plaintiff that the paper in dispute was signed in the public office of the American House, Montpelier, Vt., on the fifth day of June, 1884, in the presence of numerous witnesses.

J. W. Smith testified that he was present on this occasion. Fuller spoke to him, and said: "I am doing what few men would. I am renewing some obligations which Henry and I have carelessly allowed to outlaw." Fuller immediately sat down, and reading over a paper which was handed him by Rowell, the plaintiff, signed it. Witness noticed the paper at the time, and fully identified the document in dispute as the same.

James M. Kent, a writing-teacher for more than ten years, corroborated Smith on every point. He had for years lived at the American House, and had frequently acted as clerk, heading the hotel register. A circumstance

that helped to fix the date of the signing in his mind was that on the day in question (June 5, 1884,) the plaintiff Rowell called his attention to an error in the register heading,—it appearing June 5, 1885, instead of 1884,—whereupon witness altered the figure. (The register being put in evidence showed that the alteration had been made.) Witness saw Rowell write a paper on this occasion and hand it to Warren Fuller, who, having read it over, affixed his signature and returned it. He examined the paper in dispute and identified Fuller's signature. He also produced his private diary, in which the last entry, under date of June 5, 1884, was "Saw Warren Fuller," etc.

A. J. Burnham testified to substantially the same state of facts, positively identifying the paper in question. In the same line was the testimony of Joseph D. Clogston and L. L. Durant, a lawyer, who had done business for Rowell. Both of them clearly remembered seeing the paper written and signed in the office of the American House, as testified to by other witnesses.

Besides these five witnesses, swearing positively to having seen a paper written by Rowell and signed by Fuller, at a certain time and place (which paper they fully identified in the document upon which the suit was brought) the plaintiff introduced several other witnesses who testified that they had heard Fuller say he intended making such a paper to Rowell, and to other facts tending to corroborate the plaintiff's claim.

Against this mass of direct testimony, three witnesses took the stand for the defense, to say that they had been with Warren Fuller on the day of the alleged signing, and did not know of his going to the American House. The possibility of Fuller's having gone to the hotel and executed the paper in question without the knowledge of these witnesses was fully established on cross-examination.

A book known as the "Marble-Book," containing consecutive acounts of Fuller's business as a marble-worker

from 1870 to 1884, in his own hand, was introduced to establish the character of his handwriting. Other witnesses familiar with Fuller's writing were called to establish the genuineness of certain signatures, to be used as standards.

Kent, the writing-master, had sworn that the signature and papers were written with the same ink as the entries upon the hotel register. A chemical test made by the author of this book in the presence of the court and jury determined the inks to be very different. Under the test one ink was removed, the other simply turned red. Kent had lied. By referring to the foregoing cut, it will be observed that the *W* and *F* in the questioned signature are quite different from those in the standard signatures. By reference to the daily entries in Fuller's writing in the "Marble-Book," during the previous fourteen years, it appeared that some ten years prior to the date of the paper in suit Mr. Fuller habitually made letters of that type. It also appeared by Rowell's testimony that it was about that time that the obligations alleged to have been renewed were contracted, and that Rowell had become possessed of Fuller's signature. By the expert comparison it was shown that the signature in question was not only a forgery, but that Rowell had unwittingly used for a copy a signature written by Fuller fourteen years prior to the alleged signing of the renewal paper; and furthermore, that the questioned signature was forged by Rowell. By again referring to it in the cut herewith presented it will be observed that the final strokes of the *n* and *r* sweep far below the base-line. In a large number of Fuller's genuine signatures and hundreds of pages of his writing in the "Marble-Book," no final strokes swept below the base-line, while in the renewal paper, confessedly written by Rowell, they were frequent.

The jury immediately rendered a verdict for the defense, and pronounced the signature in question to be a forgery. All the principal witnesses and Rowell were indicted, Rowell for forgery and perjury, and the others for perjury.

Durant, the lawyer who was supposed to have concocted the scheme, was found dead in his room the morning of the day set for his trial, supposedly a suicide. The others, through flaws in the indictments and other technicalities, escaped trial.

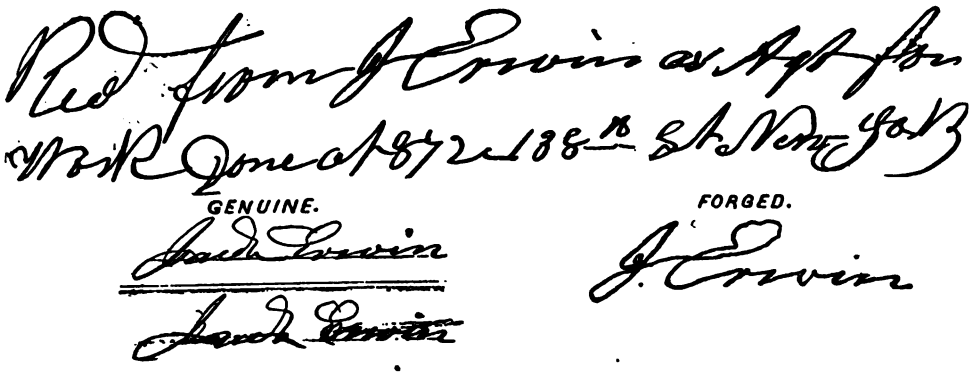
THE ERWIN CASE.—Another interesting and important case was that of a forged note for $4,000 against the estate of Jacob Erwin, which was tried before Vice-Chancellor Van Fleet, at Jersey City. The note was presented to the executor by a woman who alleged that it had been presented to her by Mr. Erwin just prior to his death. On being disallowed by the executor, suit was brought for its collection. When submitted by the executor to the writer for examination, he pronounced the signature to be a forgery, the body of the note being confessedly in the handwriting of the claimant. It was observed that while the alleged signature bore a close resemblance in form to Mr. Erwin's genuine writing, it was not a good imitation of his signature. Besides, in its drawn, hesitating, and tremulous lines it did not properly represent his ordinary and natural facility of movement.

During the trial the attorney for the claimant put into the case, as a standard for comparison, a receipt, the body of which was written by Mr. Erwin, and which had been in possession of the claimant. In the body of the receipt Mr. Erwin had written his name not as a signature, but as body-writing. On inspecting this writing, it was at once apparent to the expert that the name as written in the receipt had been used as a copy for the forged signature to the note, and had been transferred by a tracing, thus giving an outline so perfect that, when superimposed one upon the other, one outline only was visible. The forger evidently did not know, or had overlooked, the well-known fact that with nearly all writers an autograph, from its more frequent writing and for a special purpose, becomes more spe-

cialized and monogrammic in its character than are the same words when written merely as body-writing.

These facts were made so apparent by the expert that the Chancellor, turning to the plaintiff's attorney, said, "Do you desire to continue this case further?" The attorney replied that he did not, whereupon the Chancellor immediately pronounced the signature a forgery.

TWO LINES FROM THE RECEIPT, FROM THE BODY OF WHICH THE SIGNATURE TO THE LINES WAS TRACED.



MISER RUSSELL CASE.—Another and more recent case was that of Miser Russell, who was for many years a printer in New York, and at the time of his death left about $30,000 deposited in various savings banks. He was known among his friends as a bachelor, and he had frequently said he had no relatives living. So far as his friends and acquaintances knew, this was the fact; but immediately upon his death, a lawyer appeared representing a woman residing in Michigan, who laid claim to Russell's estate on the ground of being his daughter. To sustain this claim she produced several letters which she alleged she had received from him at intervals during several years and one just previous to his death, which were addressed to her as "My Dear Daughter."

These letters were submitted to the writer for comparison with the genuine writing of Mr. Russell, to ascertain

whether or not he had written them. They were pronounced and proven to be forgeries, thus disapproving the claim, and the $30,000 went into the public treasury, as is the case of estates left by persons who are without heirs.

A CLEVER SCHEME.—Some three years since the writer was called to Warsaw, in the western part of New York State, to examine several notes which had been presented to the executors of a large estate, under circumstances that had awakened suspicion as to their genuineness. Upon a careful examination and comparison of the handwriting in the body and signatures of the notes with that of the testator, it was very apparent that the notes in question were forgeries. The circumstances attending the discovery and presentation of the notes were indeed romantic. It seems that the testator, who had been a farmer and speculator, left an estate valued at about $200,000. The nearest of kin were nephews and nieces, among whom, after leaving several legacies, the estate by the will was to be divided equally.

For many years there had been employed as housekeeper by the testator a bright young woman who had frequently been called upon by him to do writing and not unfrequently at his request to sign papers for him. There was also a hired man upon the farm, who finally married the young woman, both continuing to be servants of the testator until his death, and to each of whom he willed $1,000, besides $500 to each of their several children. It would seem that the entire family had become, as it were, pets of the old gentleman. Time passed on, and some two years after the decease of the testator the husband called upon the executors and presented a note for quite a sum of money, alleging as his reason for its possession, that just previous to the testator's death, he and his wife being present, the old gentleman handed him a sealed envelope, saying: "John, take good care of this, and do not open it until after I am

dead, when it may be of great service to you." He took the envelope home and placed it in his bureau drawer, with other valuable papers, where it lay until the fact of its possession passed out of his mind.

A few months previous to the discovery of the note he said his house was entered and robbed by burglars, and that shortly after the robbery he found lying in his front room, near the window, several valuable papers, among which was this note, also a letter purporting to have been written by the burglars, which said, "These papers are of no value to us; we therefore return them, as they may be of use to you," signed "The Burglar." The papers had, as he supposed, been shoved into the room by raising the window from the outside. It then occurred to him that this note was a part of the contents of the envelope which had been presented to him by the testator. These circumstances appearing so plausible, the note was at once allowed and paid by the executors.

A few days afterward the man called with another note, which he said his children had found under the edge of the house, near the window through which the returned papers had been put. He supposed that this note had accidentally in the darkness dropped from the hand of the burglar to the ground instead of going through the window as was intended, and that the wind had blown it under the edge of the house, where it had lain until found. That story also appearing plausible, and the note appearing to be in the genuine handwriting of the testator, it was allowed by the executors. Shortly after this he presented a note for a much larger sum, which he said the children had found under the edge of the horse-barn. This, he said, he supposed had dropped accidentally and the wind had blown it to the place where it was found. The third being for a larger sum, caused the executors to hesitate and take counsel before its payment. It was at this time that the notes which had been paid, together with the one which had been

presented, were submitted to the writer. The payment of the third note was declined and suit was brought for its collection, when the demonstration of the forgery to court and jury was so complete that a verdict of forgery was almost instantly rendered, not only as to the notes in suit, but those which had been paid. The parties therefore not only failed in their claim upon the third note, but also were compelled to return the money which had already been paid on the previous ones. These notes with the interest aggregated about $13,000.

CHAPTER XVI.

THE LEWIS WILL CONTEST, HOBOKEN, N. J. — FORGERIES AGAINST THE ESTATE OF JAMES G. FAIR, SAN FRANCISCO, CAL. — FORGED WILL OF A. J. DAVIS, OF BUTTE, MONTANA — FORGED CHECK AND NOTE AGAINST THE DODGE ESTATE, PLYMOUTH, N. H. — FORGED DEED, KINGSTON, N. Y. — BAKER WILL CONTEST, TORONTO — GORDON WILL CONTEST, JERSEY CITY, N. J. — FORGERY AGAINST THE REDFIELD ESTATE, SYRACUSE, N. Y. — THE MURDOCK ALLEGED FORGERY, WILLOWS, CAL. — THE MOREY-GARFIELD FORGED LETTER — CADET WHITTAKER CASE, WEST POINT — COLLUM-BLAISDELL ALLEGED FORGERY, MINNEAPOLIS — BOTKIN MURDER CASE, SAN FRANCISCO — DR. KENNEDY MURDER CASE, NEW YORK — HUNTER-LONG FORGERY, PHILADELPHIA — BECKER RAISED DRAFT, SAN FRANCISCO.

THE LEWIS WILL CONTEST.— It is probable that no legal contest in this country during the last decade, in which the genuineness of handwriting has been called in question, has attracted more attention than did the "Lewis Will Case," which began in the courts of Jersey City, N. J., in 1877, and ended in the United States Court at Trenton, N. J., in March, 1880, with the conviction and imprisonment of six persons who, in various capacities, had been engaged in the conspiracy.

Joseph T. Lewis, a miserly old mulatto, died at Hoboken, N. J., in 1877, aged upward of eighty-seven years, leaving a will by which, after specifying several comparatively small legacies, he bequeathed the residue of his estate (amounting to over a million of dollars) to the United States, to be applied to the payment of the national debt. So far as was known at the time of his decease, he was a bachelor, and

had no near relative in this country—he being a native of Jamaica, West Indies. Little has been made known of Mr. Lewis's life, or how he amassed his great fortune, except that he began life as an engineer, and afterward made shrewd and successful investments in Wall Street. From a sketch of his life, published in the New York *Sun* during the will contest, we abstract the following incidents illustrative of his eccentric habits of life:—

"He dressed in well-fitting clothes, and was scrupulously neat. In one hand he carried a cane. Under his left arm was invariably a black umbrella on fine days in winter, and a yellow one in moderate summer weather. A flower usually decked his buttonhole in summer. He seems to have had a few intimate friends, among them the gentlemen he named as his executors, and Herman Batjer of New York, and General Hatfield, a resident of Hoboken; but he was a mystery to them all. His conversation showed that he had traveled in Europe and in South America. He displayed some familiarity with art, was a member of the National Academy of Design, and was delighted to do amateurs small favors in the way of tickets. He was simple in his tastes and habits, but was not averse to letting it be known that he could be a gourmand on occasion. His opinions, shrewd and generally sound, were always strongly and sometimes testily maintained. His investments were almost uniformly successful, because he was careful and methodical, and never speculated. He never bought real estate. His whole fortune at his death, over a million and a half of dollars, could be carried in his hat. Before the day arrived for clipping his coupons, he had always provided for investing the proceeds, and he never kept money in a bank where it would not draw interest. He deeply sympathized with the Union cause at the outbreak of the war and in the emancipation of the slaves, and he said as he was too old to go into the army he would help the Government in his own way. This was to invest largely in United States bonds as each loan was offered. These, and solid securities, like gas stocks and New York Central, were his chief investments. He offered to buy 4,000 shares of Central in a lump from the old Commodore, whose death interrupted the negotiation.

"About 1820 Lewis moved to Hoboken, where he continued to reside to the time of his death. He lived most of the time with only an old housekeeper in a modest house in Hoboken, and she complained that he half-starved her. At other times, when he lived in a boarding-

house, he was always suspicious that his landlady was stealing from him, or that she wanted to poison him to get his money. He seemed to take a cynical delight in encouraging people to believe that they would be remembered in his will, and he would take whatever favors their hopes led them to offer him. Everybody to him seemed to be guided by sinister motives. He kept Joshua Benson, of Hoboken, on the tenter-hooks for years. Benson was too poor to buy a house. Mr. Lewis loaned him the money, and got him to buy the one next to his. From that time Benson did almost a valet's service for him, going his errands, reading to him, and humoring all sorts of whims. Mr. Lewis's first will bequeathed his own house to Benson, and a handsome sum of money to his wife and children, of which fact he took care to let Joshua know. All at once he became suspicious of Benson, revoked the bequests, and demanded the return of the money he loaned him. Indeed, the testimony in the will case leaves little doubt that the old man was a kleptomaniac himself. He would pick up little articles in grocery-stores or in neighbors' houses when opportunity offered. About his own house he was slipshod. At the basement window he would be seen reading his newspaper, wearing a white nightcap, covered by an old straw hat, and with an old duster over his shoulders. The boys threw dirt at the window and shouted: 'Hey! old bachelor!' till he sallied out and chased them away.

"The old man was proud of his vigorous constitution, and attributed it to his temperate and prudent habits. Mr. James, of the Manhattan Bank building, who used to invest money for him, describes him as coming dancing into the office shortly before his death, at eighty-seven years: 'A-h-h! eighty-seven last Tuesday,' he cried. 'Teeth sound, firm on my legs; appetite good. Temperance!' and the old man chuckling, would slap his breast like a crowing cock."

Although, as we have said, Mr. Lewis had always been known to his friends and neighbors as a bachelor and without near relatives, greatly to the surprise of the executors of his will, when that instrument was presented for probate, there appeared, as contestants, an alleged widow calling herself Jane H. Lewis, and one Thomas Lewis, who alleged himself to be a son, and two other persons, named John and Martin Cathcart, claiming to be nephews of the deceased millionaire. Then began a most determined and bitter contest of the will between the United States Gov-

ernment, as proponents, and the alleged widow and relatives, as contestants.

Among Lewis's papers left at the Manhattan Bank in New York, where he had for many years transacted his business and kept his papers and securities, were found letters revealing the names of relatives at Jamaica, W. I., and among them one addressed "My Dear Sir," and signed "Joseph Levy."

Mr. Lewis's will had been drawn in the office of ex-Attorney-General Gilchrist, of Jersey City, and he was engaged on behalf of the executors to sustain it against these attacks. E. De R. Gillmore, a clerk in his office, was dispatched to Jamaica to investigate as to Mr. Lewis's relatives. The same steamer carried out John Cathcart, of New York, one of the alleged nephews, who had come from Ireland, but he and Mr. Gillmore were unknown to each other. Mr. Gillmore's first step on landing in Jamaica was to engage a lawyer named Nathan, who knew the Johnsons and Graces, named in Mr. Lewis's correspondence as relatives. He also directed Mr. Gillmore to a very old black woman, who was familiar with their early history. Gillmore and Nathan went together to see the old black woman. She told the following story, as it was produced in court: Joseph Lewis's father, she said, was a Jew named Jacob Levy; his mother, with whom Levy had lived, but whom he did not marry, was Jane Wright, a mulatto woman, whose mother was a full-blooded negress.

Levy took his boy to New York, so that nobody could discover his parentage, and changed his name to Lewis, and after keeping him at school a while, bound him apprentice to an engraver. The old woman said she was told about this last circumstance by Charles James, another illegitimate child of Jane Wright by another father; she had also heard that Frances Grace and Magdalene Johnson had been receiving money regularly from this long-absent half-brother in New York.

After listening to the story of the old black woman, which he took down in writing, and making a careful search of the records of marriage, Mr. Gillmore satisfied himself that there were no legal heirs of Mr. Lewis in the West India Islands, and also that the reputed nephews of New York bore no relationship to him.

While Mr. Gillmore was thus pursuing his quest in South America the putative widow was pressing her claims before Master-in-Chancery See, in Jersey City, to whom the Chancellor had referred the matter, to take testimony. The executors said that they had never heard of the millionaire's marriage; but she told her story with minuteness and confidence, and produced a genuine-looking marriage certificate to verify it. This purported to have been drawn November 18, 1858, by Ethridge M. Fish, who, as was well known, had been a justice of the peace in Hoboken years ago. George R. Bradford, whose name appeared on the certificate as a witness to the ceremony, went upon the stand and testified that he had duly witnessed the marriage certificate. One Schmidt, who claimed to have been a commission merchant at 181 Pearl Street, swore that he had been in Mr. Lewis's house in 1859, and there had been introduced to this lady by Mr. Lewis as his wife. Elijah Caldwell, a lawyer in New York, swore that he also had frequently visited Mr. Lewis at his house, and had seen Mrs. Lewis there, and even testified that he had at one time taken proceedings for a divorce on behalf of Mrs. Lewis against Joseph L. Lewis, which was speedily settled by the parties in his office.

The alleged widow seemed to make a strong case. Indeed, Mr. R. W. Russell, counsel for Jamaica claimants, admitted, and evidently with perfect sincerity, that he was convinced her standing could not be shaken, and that he believed her to be an estimable woman. "When she first met the old man," he said, "he was more than seventy years of age, and she was about twenty. He was twenty

years younger in appearance, and was as erect and agile as a man in the prime of life. To conceal the evidence of the trace of negro blood in his veins he shaved off his kinky hair and wore a wig. The dark tint in his cheeks he artfully concealed by a few touches of rouge. He courted Miss Hastings, who was handsome, attractive, and well educated, most assiduously. She came of noted families in England on both her father's and her mother's side. She was left an orphan at an early age, but she grew up with a strong pride in her ancestry, and her great ambition was to visit England. She once rejected Lewis's offer of marriage, but he persisted in his suit. He concealed from her his doubtful parentage, and represented that he too was of an old English family. He told her that he had visited England, and had been presented at court. Finally, when he offered to take Miss Hastings to England in search of her ancestors, and to devote himself and his fortune to the gratification of her wishes, she agreed to marry him. Why, he even made her believe that he possessed literary tastes. He used to copy poetry out of books, and pass it off on her as his original composition.

"They lived together," Mr. Russell continued, "for six months, and then she went away from him, a broken-hearted woman. In regard to his treatment of her, more will appear hereafter. One instance will give you an idea of her life. The old man came into her room one day and found her in tears, with a packet of letters from her parents and their pictures before her. In a rage, he swept letters and pictures into the fire, saying, 'These writings make you morbid.'"

The executors and their counsel were puzzled by this mysterious widow, who seemed to have sprung up from the earth. She was tall, light-complexioned, modestly dressed in black, about forty years of age, self-possessed, and evidently a woman of experience. She declined on the stand to give her residence, and the executors put detectives on

her track vainly for a time. At last one succeeded, after she had led him through a puzzling chase on her way home after giving her testimony. He swore that she crossed to New York by the Desbrosses-Street ferry, then took a West-Street car to the Staten Island ferry, which she crossed, and returned on the same boat; then visited the Astor House and a number of other places, fetching up at last in No. 22 St. Mark's Place, which the detective ascertained to be a boarding-house. Her further movements were watched steadily. In the month of August it was declared that she made about thirty visits to pawn-shops with small articles, which she pawned in the name of Jane Holbrook. It was declared by the detectives that she was seen to associate with Marcus T. Sacia, who had been repeatedly charged with forgery. The Palisade Insurance Company of Jersey City did business for a time on bogus securities, and Marcus Sacia's father, Charles Sacia, was indicted for his agency in it.

Another associate, to whom, as alleged, she paid furtive visits, was one Dr. Park. The detectives said that, under pretense of writing an article on Joseph Lewis for *Harper's Magazine*, Dr. Park succeeded in gleaning from Joshua Benson, of Hoboken, the most minute particulars of Mr. Lewis's life. This, the executors claimed, might explain the widow's seeming familiar knowledge of the old man and his habits.

The alleged marriage certificate was shown to a son of Ethridge M. Fish, who swore that he believed the signature to be a forgery. His father, he said, was not a justice of the peace at the date of the certificate, November 18, 1858, but in 1858 or 1859 went to Iowa. The executors sought intelligence of him there, and were told that he was dead, and that the man most likely to be engaged in the alleged forgery of his signature was Mark Sacia, who had been associated with him in Iowa in various transactions. Sacia had been employed in the office of the Recorder of

Pocahontas County, and a large quantity of his writings were found there, including several county books. County officials who had long known both Sacia and Fish came on from Iowa, bringing and identifying these writings as Sacia's, and after examining the marriage certificate swore that, in their opinion, it was written by Sacia. They had observed his intimacy with Fish in Iowa, and had seen him imitate Fish's signature by holding a paper against the window and tracing over it with a pencil. They swore that Sacia had engaged in several culpable transactions in Iowa, and had finally fled the State, secreted in a dry-goods box, to escape punishment for the forgery of Lyons County bonds.

It was ascertained, through the aid of the Chief of the Bureau of Engraving at Washington, D. C., Mr. Casillear, that the engraved blank upon which the alleged marriage certificate was written could not have been in existence at the time of the alleged date of the certificate in 1858, as the plate from which it was printed underwent very material alteration in 1862, and that, therefore, no such blanks could have existed until after that date. Although this fact seemed conclusively proved, it was sought to overthrow it by the production of other marriage certificates of even a prior date, written upon a blank printed from the same plate, and that, therefore, the testimony concerning the plate was insufficient to establish the forgery. In order to accomplish this a clergyman was offered to prove the register of St. Ambrose Church in New York, by which it appeared that certain persons had been married on the 28th of August, 1859, and this having been proved, two other marriage certificates were produced purporting to have been made in the years 1858 and 1859.

Frank Fleet was the person who was married according to one of these certificates, and William Arnoux was the witness. Frank Fleet, Arnoux, and Elijah J. Caldwell swore to the genuineness of these certificates, and to their

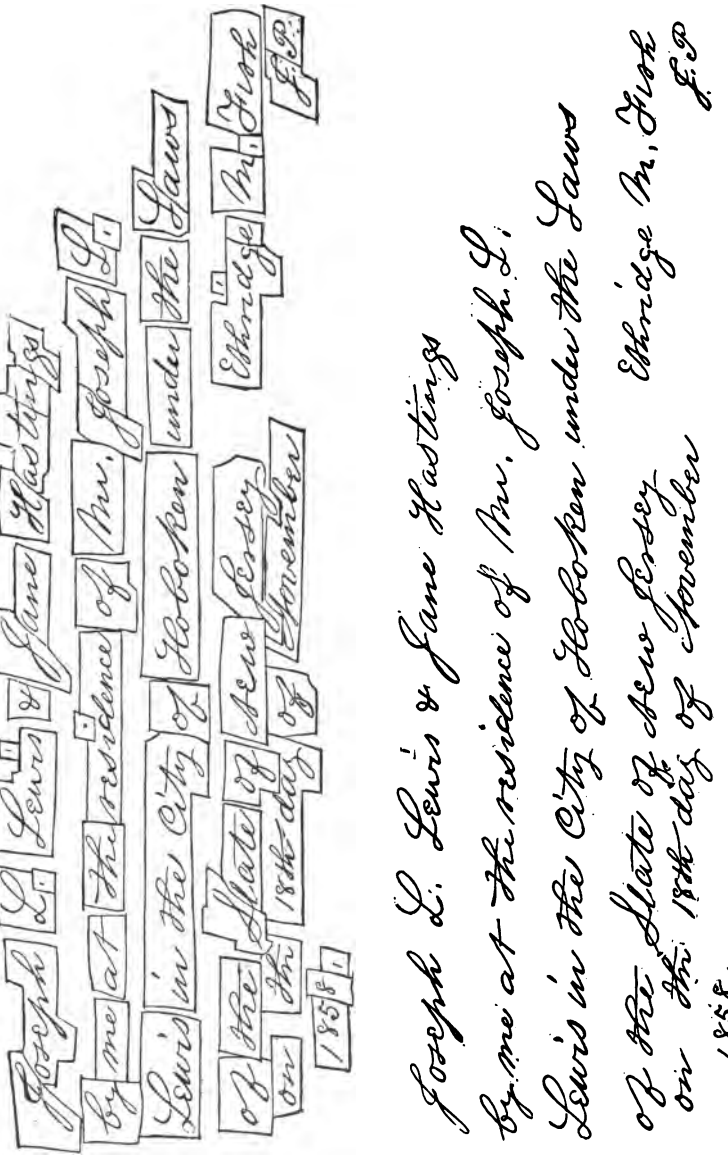
knowledge of the circumstances of the marriages, in positive terms, going into minute circumstances of the transactions to show that these certificates, precisely like that of Mrs. Lewis, were really made and signed at about the same time as that which purported to be the marriage certificate of Joseph and Jane H. Lewis.

It was, however, subsequently proved conclusively that those certificates were also forgeries, concocted for the special purpose of bolstering the original forgery. An expert upon handwriting was now called by the proponents, who pronounced the marriage certificate a forgery, and on comparing it with Lewis's writing declared his belief that the body of it was in Sacia's undisguised hand. Comparing it with the writing of Fish, which had also been proved, he said the signature, "Ethridge M. Fish," appended to the certificate, was in Sacia's handwriting and an imitation of the writing of Fish. He then set about making a conclusive demonstration of the correctness of his conclusion, — to do which he caused a large quantity of the writing of both Sacia and Fish to be photo-lithographed, and from these printed copies he cut out words and parts of words corresponding to those of the forged marriage certificates, and arranged and pasted them upon a cardboard in the same order as in the certificate — thus making up two certificates: one from the actual writing by Sacia, and another by Fish. (See accompanying exhibits.) These two certificates were then compared with the forged certificates, which made it at once apparent that the body of the same was in the almost undisguised writing of Sacia, while the signature was a close imitation of Fish's, but likewise forged by Sacia. Facsimiles of these three certificates are herewith given, together with their form, as made up from the clippings from the writings of Sacia and Fish.

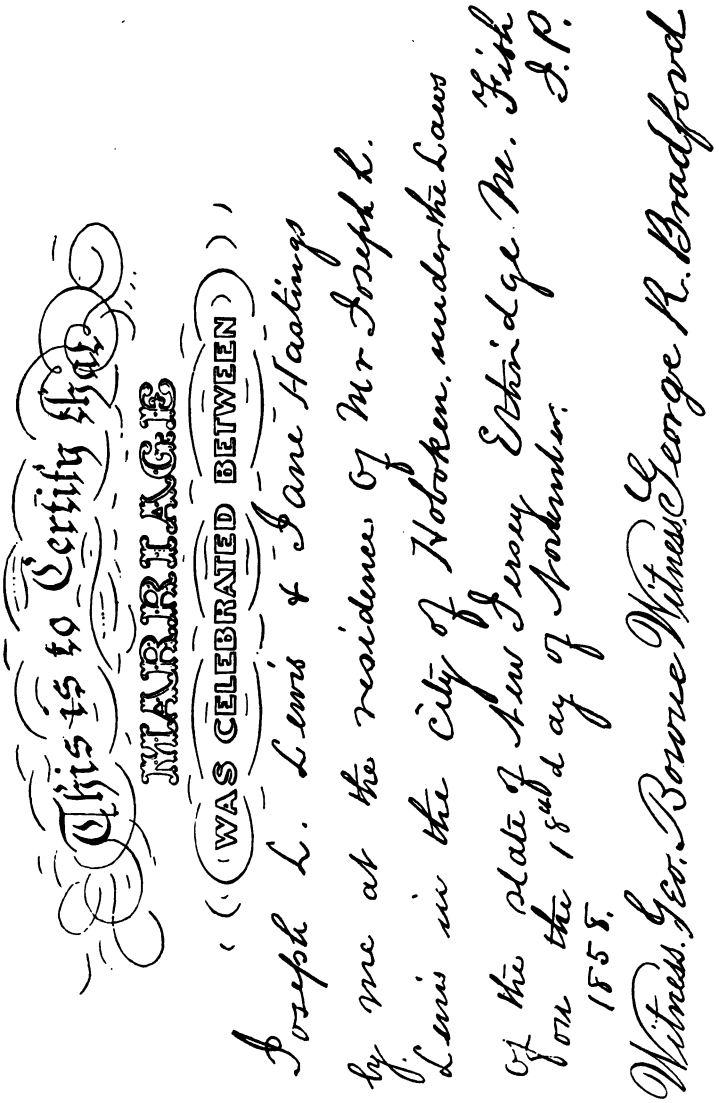
In the latter part of the year 1879, Frank Fleet, one of the parties to the marriage certificates produced in confirmation of the original certificate, became very ill and was

apparently about to die. He made a full confession that he had been persuaded to swear falsely as to these certificates. In the mean time the Government detectives, under the direction of Special Agent H. M. Bennett, of Newark, N. J.,

CERTIFICATE MADE UP FROM FISH'S WRITING.



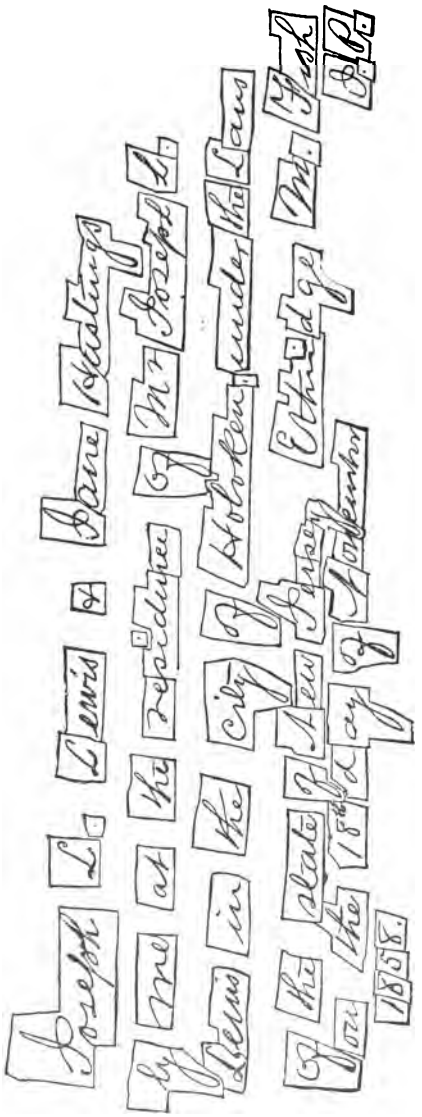
had fully satisfied themselves that these two marriage certificates were forged by the same person who had concocted the original conspiracy; and after the confession of Fleet, three of the persons who had proved those certificates were


This is to Certify that
MARRIAGE
WAS CELEBRATED BETWEEN
Joseph L. Lewis & Jane Hastings
by me at the residence of Mr Joseph L.
Lewis in the City of Hoboken, under the Laws
of the State of New Jersey Ethridge M. Fish
on the 18th day of November
1855.
Witness. Geo. Bourne Witness. George R. Bradford J.P.

brought forward and examined on behalf of the Government, and thoroughly exposed the fraud.

At this period of the case Mrs. Lewis found it necessary, as she afterward stated in her confession, to furnish some

CERTIFICATE MADE UP FROM FORGER SACIA'S WRITING.



Joseph L. Lewis & Jane Hastings
by me at the residence of Mr Joseph L.
Lewis in the city of Hoboken, under the Laws
of the state of New Jersey Ethridge M. Fish
on the 18th day of November
1858. J. P.

material evidence of the fact that she had lived with Mr. Lewis as his wife. She was urged to do so by her counsel, who felt the force of the fact that thus far no article or relic remained as a memento or token of her married life. She stated with great minuteness how this was done. Mrs. Isabella Harper testified to the finding of an old pillow-case containing a considerable quantity of old laces, silks, and other articles, which she alleged had been left by Mrs. Lewis in her house in 1862 at the time she boarded there; that Mrs. Lewis had used the pillow-case as a rag-bag, and in moving from the house had left it behind; that during the examination before the Master, Mrs. Lewis had come to her house and learned of the fact of this pillow-case having been left by her with Mrs. Harper, and requested her to produce it before the Master and testify to the circumstances, and to the fact that it had been there in her possession since 1862; that on being opened, they found, among the old articles in the bag, two old yellow receipts for board signed by the daughter of Mrs. Harper, saying that they were receipts for the board of Mrs. Jane H. Lewis. The pillow-case was found to be marked "Joseph L. Lewis" in what was alleged to be his own handwriting.

This piece of evidence was naturally deemed very important on the part of the alleged widow, in contradiction to the overwhelming testimony adduced against her, as to the plate from which the marriage certificate was made; but in her late confession she explained that it was contrived under the direction of Dr. Park, the chief conspirator, who sent her the pillow-case, and who must have procured the name of Lewis to be forged upon it. She thereupon put the old articles into it, and carried it to Mrs. Harper, and requested her to produce it before the Master, and testify to its having been there since 1862. This was her last effort.

About this time it had been ascertained that Mrs. Lewis, the alleged widow, had in 1874 personated a Mrs. Jennie

Hammond in proceedings for a divorce from a pretended husband, in order to blackmail a gentleman with whom she had been improperly intimate. District-Attorney Keasbey went to Washington, D. C., in order to secure the attendance of the gentleman in question to identify Mrs. Lewis as Mrs. Jennie Hammond. Mr. John R. Dos Passos, a lawyer of good character in New York, had been employed in this case on behalf of the gentleman in question, and had had several interviews with the so-called Jennie Hammond. He, together with the gentleman from Washington, came to the office of Mr. See, in Jersey City, and fully identified Mrs. Lewis as Jennie Hammond.

Mr. Dos Passos and his brother and clerk being called as witnesses, produced letters written by the alleged widow while personating the character, and alleging that she was Mrs. Jennie Hammond, and made the matter so clear that it was impossible for respectable counsel to continue longer to maintain her claims. Within a short time thereafter she filed a formal renunciation of her claim as widow, and her case was ended.

Further testimony was taken on behalf of the executors to establish the competency of Mr. Lewis and his capacity to make a will. This was proved by many bankers and others in New York who had known him during a long course of years. The will case was then closed.

Some conception of the length and persistency of this contest may be formed when it is stated that about three thousand pages of testimony were taken relative to the alleged marriage alone.

Immediately after the filing of her renunciation Mr. District-Attorney Keasbey brought the matter to the attention of the Grand Jury, then in session at Trenton, and obtained an indictment against nine persons, viz., Andrew J. Park, Jane H. Lewis, Marcus T. Sacia, Henry T. Bassford, Frank Allison, George R. Bradford, Mary J. Russell, George N. Westbrook, and Frances Helen Peabody. These were the

persons whom Mr. Keasbey's long investigation into the details of this conspiracy had led him to believe were the contrivers of the plot. He had had conclusive evidence against many of them in his hands for some months, but had abstained from taking criminal proceedings in order to avoid the imputation that the United States were using criminal processes to affect a civil proceeding. As soon, however, as the conspiracy was so thoroughly exposed through the evidence of Mr. Dos Passos and others as to induce the widow to abandon her claims, Mr. Keasbey procured the indictments and caused the arrest simultaneously, on the 1st of February, of most of the persons implicated. He became satisfied that Dr. Andrew J. Park was the chief contriver of the plot and the originator of the whole claim within a few days after the death of Mr. Lewis; that he had known Mrs. Lewis for a long time before, and, taking advantage of the fact that her name was really Mrs. Lewis, had persuaded her to join him in the execution of the conspiracy by personating the widow, and that he had almost immediately combined with Marcus T. Sacia, well known for his connection with forged writings, and had procured from him the forged marriage certificate, which must have been executed a few days after the death of Mr. Lewis. The other persons accused were the tools of these conspirators.

Three of the conspirators were tried and convicted in the United States Court at Trenton, N. J., of conspiracy to defraud the Government out of the property bequeathed by Joseph L. Lewis to the United States, viz., the pretended widow, Jane H. Lewis, who pleaded guilty and was used as a witness on the part of the Government, and Dr. Andrew J. Park, Marcus T. Sacia, George R. Bradford, Frank Allison, and Henry T. Bassford, whose trial began on the 27th of February, 1880, and closed on the 10th of March, with a verdict against all, Bradford being recommended to the mercy of the court, Mrs. Lewis, in her con-

fession, having alleged that Bradford really believed that she was the widow and had lost her certificate, and consented to sign the forged one and to swear to its genuineness out of sympathy for her.

The court sentenced Sacia and Allison to two years' imprisonment, and to pay a fine of $10,000 each; Bradford and Bassford to one year's imprisonment, and to pay a fine of $1,000 each. Park was sentenced to a long term of imprisonment.

FORGERIES AGAINST THE ESTATE OF JAMES G. FAIR.—Whether regarded from the magnitude of the sum involved, the duration and acrimony of the legal contest, which ran through nearly a year, (the trial continuing over five months,) or the boldness and persistence of the crime, the forged claims against the Fair estate constituted one of the *causes célèbres* of the United States.

Chief of the forged instruments was a will disposing of an estate of about twenty millions of dollars, and when it became apparent that the will was not likely to succeed in its purpose, two deeds were placed on record, purporting to have been executed by James G. Fair, conveying to Margaret Craven property in San Francisco valued at a million and a half of dollars. Mrs. Craven also produced an alleged marriage contract between herself and Mr. Fair, and purporting to bear, with hers, his signature. As yet, however, Mrs. Craven has made no legal claim as a widow under the alleged contract.

The expert phase of the contest was chiefly as to the genuineness of the will, it being most lengthy and alleged to be in the pencil-writing of Mr. Fair. It presented an extent of material that admitted of a most conclusive demonstration of its falsity, as will be seen by reference to the illustrations and their explanation herewith presented. The will consisted of two full legal-cap pages, written with a pencil on one side of two sheets, which presented a con-

dition most practical for tracing, by which means the forgery was largely perpetrated. Had it been attempted to write on both sides of one sheet, the writing on the first page would have so far interfered with that of the second page as to have made it impracticable.

Where a long legal document, especially one so full of technical words and phrases as a will, is to be fabricated, there would be no likelihood that the forger would have sufficient examples of the chirography of the person whose writing was to be simulated as to present models for any considerable portion of the words required in its composition; and here would be, as it proved in this case, the fatal difficulty. Such words as were found in the model writing could easily be traced in pencil, by placing the paper on which the forgery was being made over the word to be copied, holding it against a sheet of glass upon an incline, and simply tracing over them with a pencil. Since the whole will was in pencil, this was a very simple operation, but when the necessity came to use a word not to be found in his model writing, it was more difficult. Such words required to be made up syllable by syllable or letter by letter. Then would occur not only a difficulty of making the correct forms of letters, but to make the proper and natural connections between the syllables or letters; and as one syllable would be required to be taken from one piece of writing and an adjoining one from another piece, perhaps written upon a different scale, with different pencil, and under different circumstances, there would be a discrepancy in size and slant, awkward spacing, vacillation as to shade, base-lines, etc. Again, if the model writing was somewhat limited, it would not furnish examples for all the natural and habitual variations of the writing sought to be imitated, which would lead to an unnatural duplication of such peculiarities as were present in their limited material; also shades which are not sufficiently heavy would require to be retouched.

Cut (1) is a reproduction of a portion of the first page of the will, and cut (2) represents Fair's genuine writing. Referring to cut (1), it will be observed that the words "is," "last," "will," "by," "be," *for*, in "former," *be* and *th*, in "bequeath," are duplicates of Fair's writing. Compare "will," lines 2 and 3, with same word, cut (2), line 4; *for* in "former," with "from," cut (2), line 7.

In the will the first word is clearly in two parts, the line between *h* and *i* being spliced and the space twice as long as other spaces in the word. The different examples of "my," lines 2, 4, 7, and 10, are evidently copied from the same model. This word occurs eighteen times; sixteen times it terminates with a hook above the base-line, while with some forty final *y*'s in Fair's writing only two terminate with a hook, and these are below the base-line. A model of Fair's "my" is shown in cut (2), line 11. The word "former," in cut (1), line 2, is a good example of a word made up of one word ("for") and then completed with a letter (*m*) and a syllable (*er*). "Bequeath," perhaps, is as fine an illustration as any of word-building by syllables and letters,—*be*, *q*, *u*, *e*, *ath*, —and this word, once satisfactorily made, is duplicated in the will thirteen times, with its awkward combination and vacillating base-line. It occurs three times in cut (1), lines 4, 7, 10. "Crothers," line 5, is another example which must suffice. The word "equally," lines 6, 9, 11, is made up letter by letter, and is duplicated twelve times in the will. The word "Edward," cut (1), line 10, and cut (2), line 12, gives an opportunity to compare the capital *E*. Examples of the retouching of shades in the forgery are the two *S*'s, line 1; *T*, line 2; *I*, lines 3, 4, 7. There were over five hundred retouchings and breaks between letters and syllables.

Attention is called to the vacillating character of the writing in the forgery as regards size, shade, spacing, letters, syllables, words, and lines, and also to the short projections of the loops, as compared with Fair's writing.

(1) SECTION FROM THE FORGED WILL.

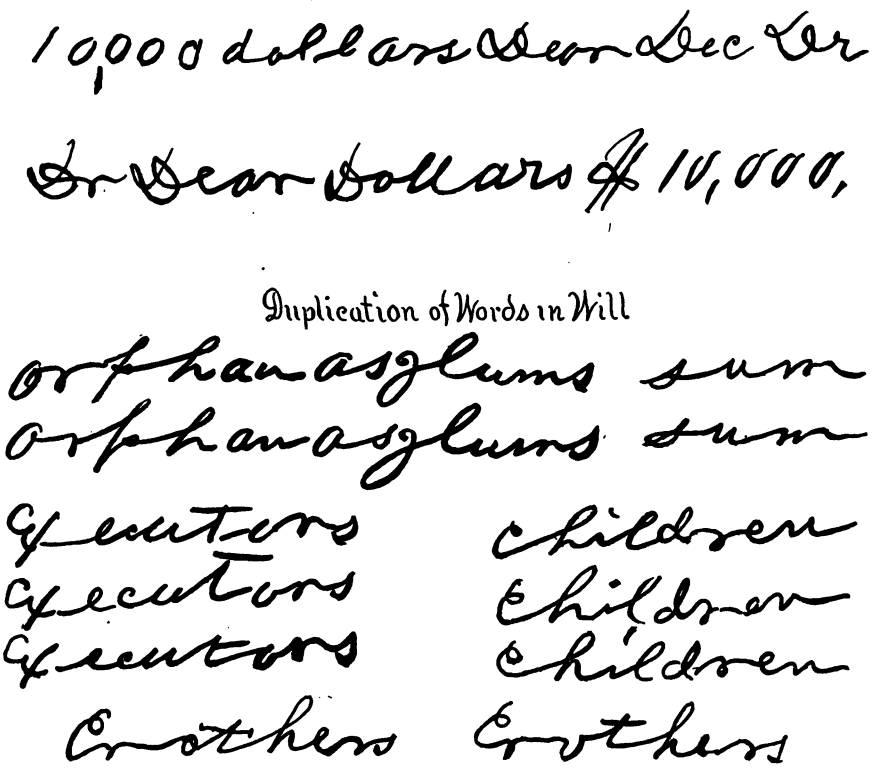
1 S. F. S. Sept 24th/94 –
2. This is my last will & testament
3 I revoke all former wills by me made
4 I bequeath to my sister Margaret
5 J. Crothers 200,000 dollars to be shared
6 Equally by her & her husband &
7 Children I bequeath to my brother
8 William Fair 50,000 dollars to be shared
9 Equally by him & his wife & children
10 I bequeath to my brother Edward Fair
11 25,000 dollars to be shared Equally by
12 him & his wife & children.

(2) FAIR'S GENUINE WRITING.

Yuma March 10th/94 Saturday
I was glad to get your telegram
today saying you had wrote and all
was going well - I will get your first
letter tomorrow Sunday night - but the
2d - letter I will get when I return
from the volcanoes in 11 days from
Monday morning -
I was so disappointed at not getting
a letter yesterday - but it may have been
my own fault in not being more defin-
ite with dispatch - Edward gave -

Necessarily only a comparatively few of the characteristic differences between the writing in the forgery and Fair's writing can be here illustrated, or even mentioned. Their exemplification before the court occupied nearly one week on the direct and nearly the same time on the cross-examination.

As a further illustration, we present a few groups of words and letters, with forged and genuine signatures. The first line following is made up of words and figures from the forged will. The second line shows the same words as Fair really wrote them. Note that Fair uses the dollar-mark ($), and that he begins the word "dollars" with a capital. This was his invariable habit. Throughout the forged papers the reverse of this is shown, as here illustrated.



FROM THE FORGED WILL.

bequeath
bequeath
bequeath
bequeath

FAIR'S GENUINE WRITING.

bequest
bequest
gift

THE FIRST LINE FOLLOWING SHOWS SINGLE WORDS WRITTEN BY FAIR.
THE SECOND LINE SHOWS THE SAME WORDS AS THEY APPEAR IN THE FORGED WRITING

Specimen Retouches in Will.

THE FIRST OF THESE TWO NAMES IS FROM THE FORGED WILL.
THE OTHER WAS WRITTEN BY FAIR.

Theresa A Fair
Theresa A. Fair

Genuine Signatures of Fair

James G Fair

James G Fair

James G Fair

James G Fair

SIGNATURES TO THE SEVERAL FORGED DOCUMENTS.

Signature to Will

James G Fair

Mission Street Deed.

James G Fair

Pine Street Deed

James G Fair

Republication Letter

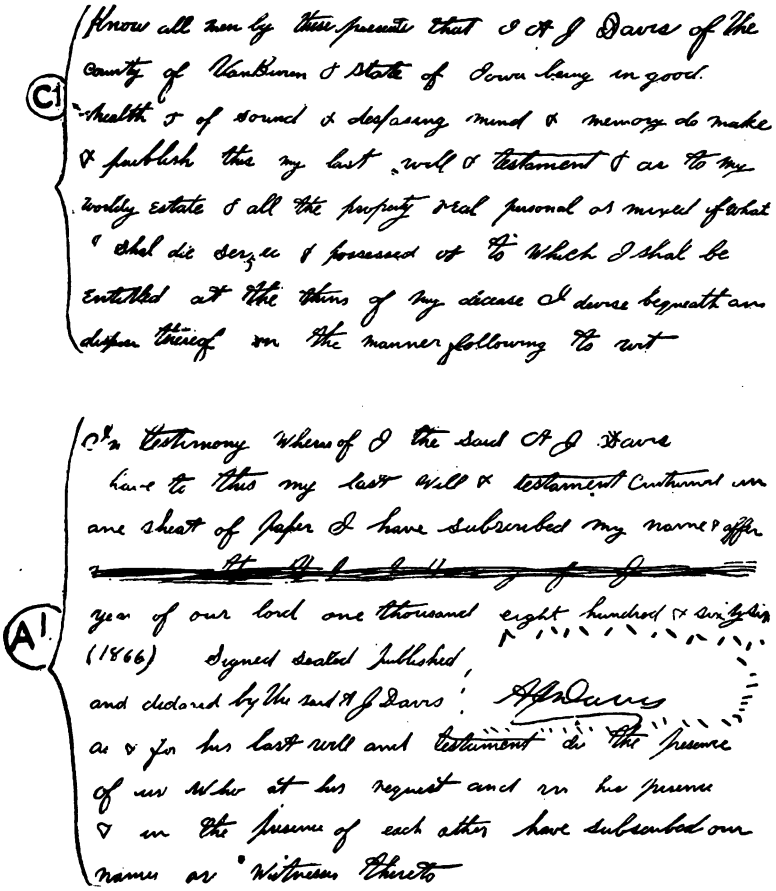
James G Fair

THE ANDREW J. DAVIS WILL CONTEST.—Andrew J. Davis died in 1880, at Butte City, Montana, leaving an estate variously estimated at from $7,000,000 to $13,000,000, according to the fluctuating value of stocks and mining property, of which it largely consisted. Shortly after Andrew's death his brother John applied to the Probate Court for letters of administration, on the plea that his brother left no will. John's application was opposed by other heirs on the ground of his unfitness. The court however decided in his favor, but it was carried to the Court of Appeals. The court sustained the probate decision, two justices assenting, and one (the Chief Justice) dissenting on the ground that the facts showed that John proposed defrauding the other heirs, and therefore ought not to be administrator. The argument of that appeal in the Supreme Court elicited a state of facts calculated to make the outcome of the appeal at best doubtful.

The opening argument was made in July, 1890, and the opinion of the court was not rendered until December. It was after that opening argument in July, and during that interval of doubt and uncertainty of the success of John's application to be put in charge of the estate, that an alleged will was produced, purporting to have been executed by A. J. Davis in 1866, devising substantially his entire estate to his brother John. At that time the estate of Andrew was small, and his mother was living. On this account and other peculiar circumstances, it seemed preposterous to the other heirs that at that early date Andrew could possibly have made such a will. The discoverer of the alleged will was one James R. Eddy. It purported to have been made in Davis County, Iowa, and to have been in the custody of Eddy's mother for twenty-five years. It was shown by the contestants that A. J. Davis was not at that time a resident of Iowa, and much other evidence was introduced to show the great improbability of the making of such a will under the circumstances alleged.

The will was submitted to experts, and was critically examined for internal evidence as to its genuineness. First, the paper upon which it was written bore evidence of having been manipulated to give to it a false appearance of great age, by having been colored with some yellow fluid, which had been so applied as to be very unevenly distributed over its surface, drying in streaks and in blotches,

SECTIONS OF THE FORGED WILL.



C1

Know all men by these presents that I A J Davis of the County of VanBuren & State of Iowa being in good health & of sound & disposing mind & memory do make & publish this my last will & testament & as to my worldly estate & all the property real personal or mixed of what I shal die seized & possessed of & to which I shal be entitled at the time of my decease I devise bequeath and dispose thereof in the manner following to wit

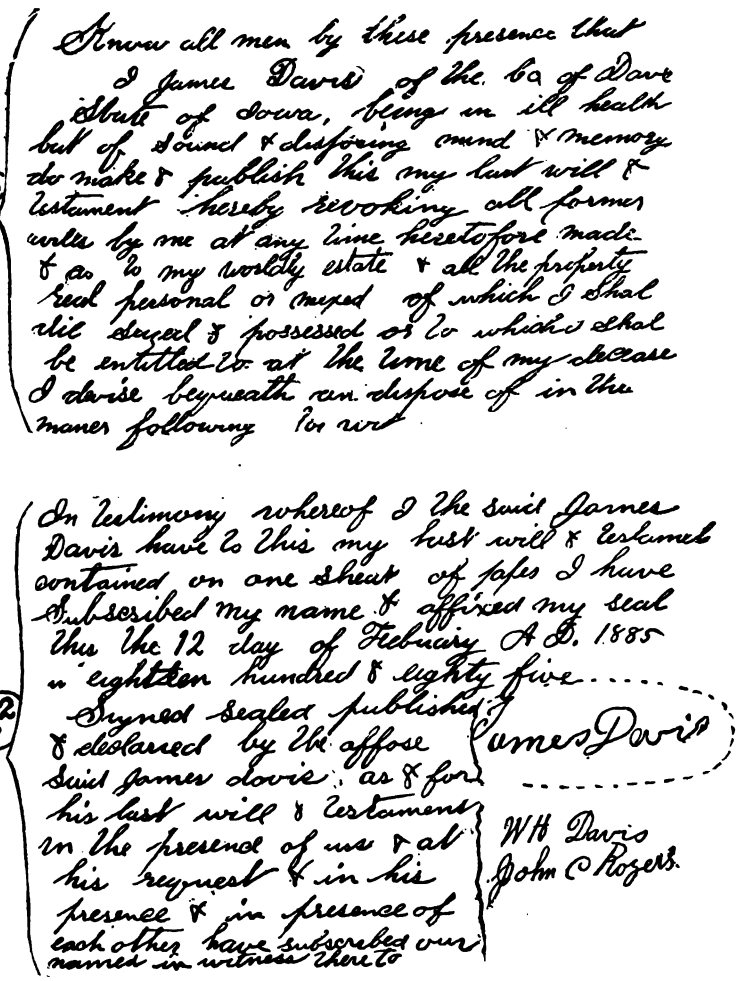
A1

In testimony whereof I the said A J Davis have to this my last will & testament contained on one sheet of paper I have subscribed my name & affix year of our lord one thousand eight hundred & sixty six (1866) signed sealed published and declared by the said A J Davis as & for his last will and testament in the presence of us who at his request and in his presence & in the presence of each other have subscribed our names as witnesses thereto

A J Davis

while the margins were torn and picked so as to give it a sort of saw-tooth appearance; besides the whole character and appearance of the document was that of having been written by a blundering ignoramus. Many of the most common words were misspelled. For instance the word "give" was spelled *guive;* "whether," *wheather;* "sheet," *sheat;* "shall," *shal;* "worldly," *wordly,* etc. Under the

SECTIONS FROM EDDY'S WRITING.


Know all men by these presence that
I James Davis of the co of Dave
State of Iowa, being in ill health
but of sound & disposing mind & memory
do make & publish this my last will &
testament hereby revoking all former
wills by me at any time heretofore made
& as to my worldly estate & all the property
real personal or mixed of which I shal
die seized & possessed or to which I shal
be entitled to at the time of my decease
I devise bequeath an dispose of in the
manner following to wit

In testimony whereof I the said James
Davis have to this my last will & testament
contained on one sheat of paper I have
subscribed my name & affixed my seal
this the 12 day of Feburary A D. 1885
in eighteen hundred & eighty five
Signed sealed published
& declared by the affose
said James Davis as & for
his last will & testament
in the presence of us & at
his request & in his
presence & in presence of
each other have subscribed our
named in witness thereto

James Davis

W H Davis
John C Rogers

peculiar statute of Montana and equally peculiar ruling of the judge, no comparison of the writing of the alleged will with standard writing was permitted, not even the alleged signature to the will with signatures known to have been written by A. J. Davis. The trial resulted in a disagreement by the jury, and was finally settled by compromise.

Under the laws of Montana, when handwriting is in question, one having knowledge thereof may give testimony, but the Judge held that the word "knowledge" contemplated only such knowledge as one might have from previous familiarity with the writing in question, and not knowledge such as an expert might acquire from study and comparison.

The law further states that when "any matter which involves art, science, or trade, persons skilled therein may be called to give testimony respecting the same"; but the Judge held that writing was neither an art, science, nor trade, and therefore excluded all expert testimony, and also all standard writing, even to the signature of the testator. Yet on the mere allegation of an unknown man, that, over twenty years before, he had met Mr. Davis in the highway and paid him some money, for which he gave him a receipt written with pencil, while sitting in his carriage, was permitted to testify to the genuineness of the signature to the will.

The trial was one of the greatest farces ever enacted in a court of justice. The known forger sat in the courtroom during some of the trial, shielded by the fact that all expert testimony was excluded, when its admission would have surely demonstrated the will to be a forgery, and James R. Eddy to be the forger.

We append cuts of writing, showing a few of the many coincident characteristics as between the writing of the forged will and one known to have been in the handwriting of Eddy, and could have been proved into the case as such.

Fac-similes from Will.	Fac-similes of Eddy's writing.
1 gnive gnive	16 gnive. gnive, gnive. gnive.
2 wosldy estate	17 wosldy estate
3 shal shal shal shal	18 shal shal shal shal
4 In testimany	19 In testamany
5 wherthes	20 wherthes
6 my. my. my my. my. my	21 my my my my my my
7 property property	22 property property
8 will will will Will Witness	23 will, wills will will will Will Witness

FACSIMILES FROM WILL.

7

good. sound, and
mind, possessed
Entitled, seized.

10

all all all

11

in in in in
in in

12

E E Entitled

13

(1866)

14

This

15

of of of of of of

FACSIMILES FROM EDDY'S WRITING.

24

good. sound,
mind. entitled.
beloved, hold.

25

all all all

26

in in in

27

Eight-E

28

(1882) (1887)

29

This

30

of of of of of

THE DODGE-RAYMOND CASE.—No other case, within our knowledge, has ever been tried before an American court wherein a more ingenious and romantic crime of forgery has been traced and so utterly baffled by expert testimony as in the Dodge-Raymond trial at Plymouth, N. H., in 1885. Although tried as a libel case, it was really one of forgery. The following is from a report of the trial by the Bellows Fall (Vt.) *Times*:—

"Mr. J. A. Dodge was president of the Boston, Concord, and Montreal Railroad, and his business relations were, therefore, very extensive. His health became poor, and in the early part of 1882 he went to California for its improvement, but failed to recover it. Henry Raymond was a confidential clerk or private secretary in his office. Mr. Dodge died in August, 1882, leaving a will and three codicils giving a detailed description of his possessions, and advice to his wife, as the executrix, for the payment of all legacies and other obligations. Raymond presented to the bank and got cashed a check for $2,500 a few hours before Mr. Dodge died, the same purporting to have been signed by Mr. Dodge only a few days previous, and immediately after his death he presented a note for $5,000 to the widow for payment. Of course, Raymond claimed that all of this came from the good will which Mr. Dodge had for him. When Raymond showed his papers to Mrs. Dodge, or announced what he had, she denounced them as forgeries, and him as a forger, in no uncertain terms, claiming that as her husband had told her very fully of his affairs it was very strange he had not told her about this. She expressed the same to others, and thereupon Raymond brought a suit against Mrs. Dodge for libel and damages for $5,000, to be followed by suits to recover the amount of the check and note. This is a mere brief of the case at this point, as it is not our purpose to go into the details of all the suit, but only to bring out a special point in the trial.

"The trial began November 17th and continued several days, during which several parties of prominence, who were familiar with the handwriting of Dodge, testified to the genuineness of Mr. Dodge's signature to the note and check. It will be seen, of course, that the bank which cashed the $2,500 check was naturally interested in the result of the case. One of the witnesses (one of the selectmen of Plymouth) testified how he advised Mrs. Dodge to settle the same, as he believed the signature to be genuine, and 'she would be $5,000 poorer when the case was finished.' At this point counsel for Mrs.

Dodge asked 'Why?' 'Because you are going to get beaten,' replied the selectman.

"On the 19th the plaintiff rested and apparently had a strong case. A contest sprang up as to the number of experts and the number of admittedly genuine signatures and other writing of Mr. Dodge that should be allowed, and Judge Smith decided that twenty signatures might be produced by each side, and that three experts and twenty non-professionals should be allowed to testify for each.

"On the 20th the defense opened by a statement from Charles A. Jewell, of counsel for the defense. Several witnesses testified, their testimony being mainly circumstantial, among them Mrs. Dodge, the defendant, and also the Hon. Edgar Aldrich, of Littleton, who said he doubted the genuineness of the signature to both note and check. The testimony of Mrs. Dodge and Raymond were flat contradictions. This and other similar testimony continued, the excitement and attendance increasing every day till Tuesday, the 24th. Now came the 'tug of war.' Mr. D. T. Ames, of New York, was put on the stand as an expert. Enlarged photographs, nearly three feet long, of the signatures to the codicil of Mr. Dodge's will, written during his illness, and his alleged signature of the check and note were exhibited side by side before the jury, when Mr. Ames instituted a close and telling comparison between the genuine and forged signatures, pointing out clearly and in detail the many evidences of forgery, making at the same time a free and skillful use of a blackboard and crayon for the illustration of the nice characteristic distinctions which he drew between the writing of the genuine and forged signatures. He had examined a letter written by Mr. Dodge in California to Mr. Raymond, and found the figures '26' and the word 'Raymond' in the note the same in every particular, and claimed the forger had copied the words and date by means of tracing. In twenty-eight capital *D*'s found in the standards written by Mr. Dodge, he had found no one that in all its nice characteristics was like those in the signatures in question.

"As Mr. Ames continued his testimony he most plainly laid open the forgery and plot of Raymond in the most convincing manner. Indeed, he tore all pretension to genuineness to shreds, not only respecting the check and note, but showed how Raymond had even fabricated by tracing an entire letter alleged to have been given him by Mr. Dodge, evincing his good will and previous promise to 'do something' for him (Raymond) as furnishing a motive and consideration for the pretended legacy consummated in the giving of the check and note.

"Mr. Ames's testimony was as convincing to the prosecution as to

all others. At its close the attorneys for the prosecution immediately announced their inability to controvert his testimony, and expressed a willingness that the defense should have a verdict, which the jury rendered without leaving their seats.

"The note was surrendered to Mrs. Dodge's counsel. The case had collapsed; the whole business was admitted to be a forgery, and Raymond was arrested before leaving the court-room, on a warrant issued by the presiding judge, and placed under bonds to appear for trial for forgery.

"In many respects it would be admitted that the forgery was close to the genuine, and the casual reader and many familiar with the handwriting of Mr. Dodge could be well excused for believing the handwriting to be genuine, and yet in the dissection of the letters and words, distances, shadings, and in various other ways, Mr. Ames threw a perfect flood of unquestionable light, covering the entire case, and certainly a most remarkable instance of effective expert testimony."

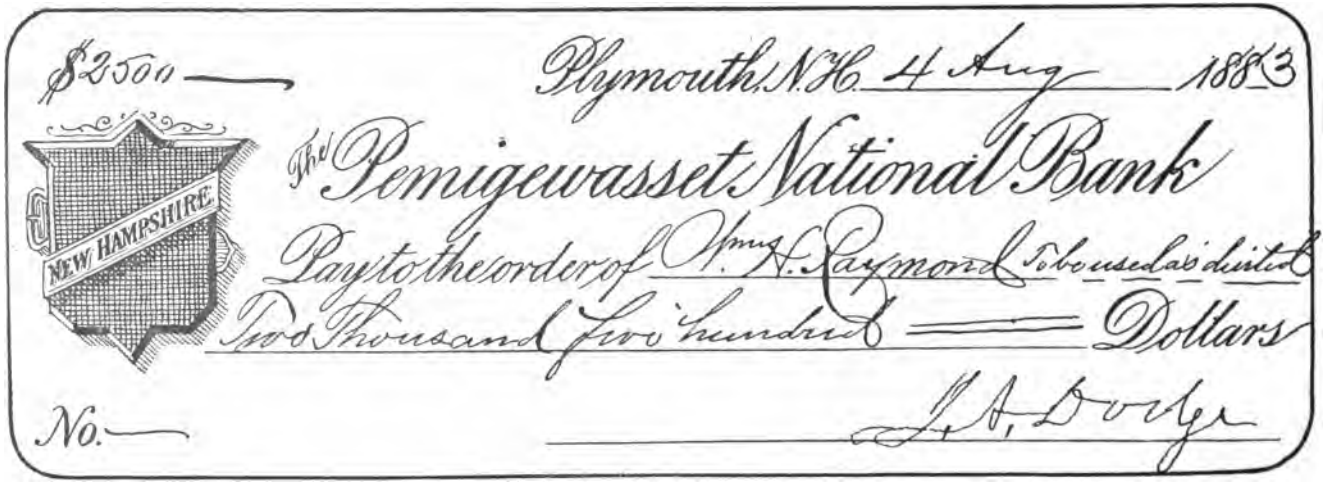
The Manchester (N. H.) *Daily Union*, November 25th, commenting on the Dodge-Raymond case, said:—

"The sudden and unexpected turn of affairs in the Dodge-Raymond suit to-day produced a profound sensation, and the case seems destined to become known as one of the most remarkable in the criminal annals of New Hampshire. . . . The case was sharply contested, point by point, by the opposing counsel, and when the court assembled this morning, no one of the crowd of spectators suspected that the end was so near at hand.

"Mr. Ames, the New York expert, resumed his testimony, commenced yesterday, and step by step unfolded and made clear the entire plot of Raymond respecting not only the forgery of the $2,500 check and $5,000 note, but of letters purporting to have been signed, and one written and signed by Dodge, intended for the double purpose of showing a reason for his giving to Raymond the check and note, and to furnish standard signatures which, when compared with those upon the check and the note, should prove their genuineness.

"The evidence produced a profound sensation, but neither court nor spectators were prepared for the surprise that followed when Raymond's counsel, after consultation, announced their agreement that a verdict of not guilty be entered for Mrs. Dodge in the suit for slander. It was as if a thunderbolt had fallen, and the audience found it difficult to realize that the famous Dodge-Raymond suit had fallen through. The developments in the affair thus far equal Gaboriau's most sensational inventions."

THE FORGED CHECK.



$2500 —

Plymouth N.H. 4 Aug 1883

The Pemigewasset National Bank

NEW HAMPSHIRE

Pay to the order of Wm. H. Raymond To be used as directed

Two Thousand Five hundred —— Dollars

No. —

J. A. Dodge

THE FORGED NOTE.

New Hampshire

$5000 — Plymouth, June 26 1883

after date I promise to pay to the order of W. H. Raymond

five Thousand — — — — Dollars

~~Pemigewasset National Bank~~

Value received.

Due

L. L. Dorr

T. STEWART HARING & WARREN NEW YORK

LETTER FROM DODGE TO RAYMOND, FROM WHICH THE FORGED LETTER OF JUNE 25, 1883, WAS LARGELY MADE UP.

Hotel del Monte,
MONTEREY, CAL.

January 5 1883

Henry

Yours of 27 Dec received I will inclose you six pass. you can fill date as you use. You no doubt have an annual on the B & M. and you can use mine ~~below~~ below Concord and say nothing.

We are all well and are doing well I feel like work again, my old trouble I think is entirely passing off, and I believe I shall return home abt April first all right.

Weather here is beautiful it seems like June 1st or pleasant days in May ××××

Yours Truly L A Dodge

BOSTON CONCORD AND MONTREAL RAILROAD.

OFFICE OF
GENERAL MANAGER.

Plymouth, N. H. June 25 1883

Henry
Yours of 23 received by
John be assured if I do not
return I will help you in some
other way Say nothing of this

Yours Truly
L. A. Dodge

PENCIL LETTER, FORGED BY TRACING THE WORDS AND SIGNATURE FROM THE LETTER ON OPPOSITE PAGE.

L. A. Dodge | J. A. Dodge
L. A. Dodge | Joseph A. Dodge
L. A. Dodge | Joseph A. Dodge
L. A. Dodge | Joseph A. Dodge

Dodge's Signatures to R.R. Passes. Presented by Raymd for standards.

Dodge's Signatures to Will and Codicils. Presented by Mrs. Dodge as standards.

Hon. Harry Bingham, ex-Justice of the Supreme Court of New Hampshire, said: "Raymond's coolness in presenting the note to the widow for payment, and his audacity

in suing her for slander because she said his note and check were forgeries, combined to mark him as a rogue of unusual foresight in conception, subtlety in design, and boldness in execution, and to stamp the case as one of the most remarkable ones of its kind. The skilled expert work and unflagging industry in searching out the characteristics of the handwriting of both Dodge and Raymond through a great mass of manuscript, in devising means of making the propositions you would enunciate intelligible and convincing to the jury, and the success which attended your efforts, were all so unquestionable and summary that counsel for Raymond, in what lately appeared an impregnable case, abandoned it at the end of your direct expert testimony, and conceded a verdict to the defendant without exceptions or compromise."

A Forged Deed.—Among the most daring forgeries that have come before the courts of the State of New York, was that of a forged deed.

In 1857 a gentleman died in Ulster County, leaving to his three daughters, by will, a homestead valued at $16,000, on which they continued to reside in undisputed possession until the death of the last sister, some time in 1889. At that time one D. D. Bell produced an alleged old deed conveying the homestead to a nephew upon the decease of the sisters, which deed Bell said was executed by the father just prior to his decease and left with him (Bell) in trust for the nephew, with directions that it must be kept a secret, and not be recorded until after the decease of his daughters. The deed was placed on record at the Register's office, in Kingston. At the same time another deed was recorded, conveying one half of the estate to an attorney who appeared on behalf of the nephew. An action was at once brought to expunge the two deeds from the record on the ground of forgery. At the trial, at Kingston, N. Y., in 1887, the deed was proved to be a forgery, and

Bell was soon after convicted of the crime and sentenced to the State Prison.

The forged deed purported to have been written and witnessed by one Snyder in 1857, and was acknowledged by Bell as notary. Photographs of both deeds were placed in the hands of each juryman and the court. While the expert testimony was being given and illustrated upon a blackboard, the attention of the jurymen was directed to the peculiar features of each of the writings by the number of the line in which they concurred, and to the palpable evidence that the paper upon which the alleged old deed was written had been manipulated by washing with some colored fluid and roughly handled to give to it an apparent age which it did not possess.

On the next page is a reproduction of a portion of a deed written by Snyder which was used as a standard for comparison with the forged deed at the trial.

From the character of the writing of the forged deed it was apparent that the forger had only a limited amount of Snyder's writing to serve as models in his forgery. Certainly he had no deed, else there would have been a more characteristic reproduction of such peculiarly displayed words as "This Indenture," "Lord," "Between," and "Witnesseth," and the capital letters *W*, *N*, and *Y*. Again, it is obvious that the forger was a student of the Spencerian school of writing which was not in vogue in Snyder's time, his writing being that of the old shaded round-hand which preceded the Spencerian. It will be observed that the *n*'s and *m*'s in the standard writing close back nearly to top, where they have round turns, while in the forged writing they are nearly open angles.

A curious mistake of the forger was made in the word "of." In the standard writing this word is made in two ways, one finishing at the center with a small loop, as in lines 2, 5, and 6, and elsewhere. In the other, the finishing stroke uniformly passed over the staff to the

Genuine Deed by Snyder.

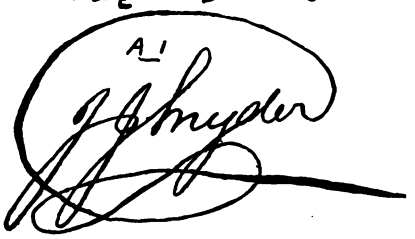
1 This Indenture made this twenty eighth day
2 of September in the year of our Lord, one thousand
3 eight hundred and fifty seven, Between Asaph D.
4 Whitaker and Joanna his wife, and Samuel Wilkinson
5 and Elizabeth his wife, of the Town of Wawarsing, in
6 the County of Ulster and State of New York, of the
7 first part, and Joshua H. B. Dumond and John C.
8 Decker the present Trustees of School district No 1.
9 partly in the Town of Wawarsing and partly in the
10 Town of Rochester, and to their successors in office,
11 of the same place, of the second part, Witnesseth,

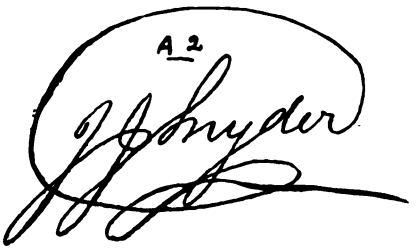
Section of Forged Deed.—

This Indenture made this thirteenth
day of July in the year of our Lord one
thousand eight hundred and fifty seven.
Between Helena Depuy and Dinah
Depuy both of the Town of Rochester in
the County of Ulster and State of New-
York, of the first part and Cornelius
Depuy of the same place of the second
part.

Witnesseth, That the said parties of the
first part in consideration of the sum

Forged Sig's of Snyder





Genuine Sig's. of Snyder.

left, as in lines 9 and 11, and elsewhere frequently in the deed.

The forger either had only the one style in his limited copy or failed to observe the other, and in every instance carried the finishing stroke over to the left of the staff but invariably over the top of the *o*. See lines 2, 5, 6, 7, 8, 9, and 10, and so on through the deed without exception.

In the standard writing there were several methods of making the small *o*, as in lines 2, 3, 7, 8, 9, etc., while in the forged deed there was but one form. We call attention to but few of the many characteristic distinctions between the two writings pointed out at the trial.

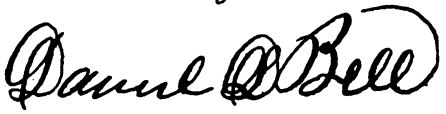
An insuperable difficulty was encountered by the forger in Snyder's genuine signature, which was freely written, the capitals and loops being swept with an arm movement and the entire signature inclosed within an oval flourish; this could be imitated only

by a drawn movement, which produced irregular, nervous, and ragged lines, while the inclosing flourish was made more circular than that of the genuine.

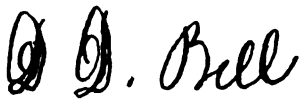
Another striking and peculiar oversight on the part of Bell was that when he came to sign his own name to the forged deed, as notary, he used the habitual signature of 1887 instead of that of 1857, between which there was a marked discrepancy as the accompanying illustrations will show. These also show how Bell's signature should have appeared upon the deed dated in 1857, if genuine.

Bell's Sig. to Deed.

Bell's Sig's in 1884.

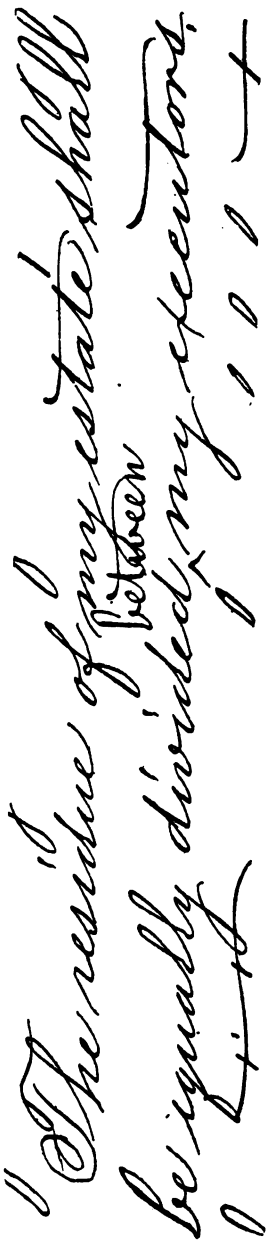


Bell's Sig. in 1857.



THE BAKER WILL CONTEST.—The contention in this case, which was tried in Toronto, Ontario, before Judge Ferguson, was over a single word interlined in the body of a will. Although only a single word, it changed the disposition of something over $30,000. Mr. Baker died in Georgetown, Ontario, leaving a will bequeathing a large estate to two sons and two daughters. The sons were named in the will as the executors. Upon examination of the will after the decease of Mr. Baker, the word "between" was found to be interlined so as to direct over $30,000, a residue of the estate after payment of all debts and specified legacies, to be divided *between* the executors. The

sons were charged with inserting the interlineation in the will, it having been in a safe at the paternal home, where the sons continued to reside. The writer of the will, a Mr. Knight, was consulted as to the interlineation, also the two witnesses to the will. Knight declared that the interlineation was not written by him, nor was it in the will at the time of the signing. The witnesses did not observe the will sufficiently close to know whether or not the interlineation was in the will when signed and witnessed.



The sense of the will being incomplete without the interlineation, it was claimed by the contestants that the word "by" should have been written in place of "between." By the sons it was claimed that inasmuch as the father had previously made large bequests to the daughters at the time of their marriage, it seemed probable, as it was alleged, that his purpose was to equalize the shares of the sons with those of the daughters, by dividing between the sons the residue of his estate.

The will was submitted to the writer for an opinion as to whether or not the interlined word was written by Mr. Knight, and was consequently in the will when it was signed. Upon the examination of a large number of documents writ-

ten by Knight it was discovered,—*first*, that wherever he made an interlineation it was in back-hand, the reverse of his habitual slant; *second*, that he had a peculiar habit of sometimes omitting the loop from extended letters, and afterward putting it on (this was done in the *b* in "between," and also in the word "be" at the beginning of the line in which the interlineation occurred); *third*, Knight had a muscular difficulty in his fingers that frequently produced an involuntary jerk at the base of his extended letters which was manifest also at the base of the *b* in "between"; *fourth*, the characteristic cross of the *t* in "between," coincident with other crosses in the will. These and some other reasons proved conclusively that the interlineation was placed there by Knight, and the will was admitted to probate as interlined.

THE GORDON WILL CONTEST.—The contest of this will was before the Chancellor of New Jersey, at Newark, during the year 1892. The will disposed of a large estate in a manner which rendered its genuineness highly improbable. It was therefore contested on the ground of forgery. On page 174 is presented a facsimile of the closing paragraph, together with the contested signature of George P. Gordon and those of the three alleged witnesses to the will; also, on page 175 are a number of genuine signatures of Mr. Gordon, above which is the alleged signature to the will. The body of the will was concededly in the writing of Henry Adams.

By reference to the illustration on page 175, it will be observed that the forged signature is really a very bad imitation of either of the genuine ones. First, it is, in a general way, upon a much more contracted scale, more heavy and formal in its construction, and has not the dash and grace of Gordon's genuine signatures. In the forgery the capital *G*'s begin at the base with an upward movement, and is one continuous movement from the beginning

to its very formal finish with a complete shaded circle, while all the *G*'s of the genuine signatures are made with two separate movements of the pen. The *G* is proportionately high. It begins at the top, and moves down with a graceful left curve to near the base-line, when it makes a round turn and rises up half way to the top of the letter, and returns on a long closed line to near the base and finishes with an informal upward movement to the left, when the pen is lifted and carried to the top of the letter and the loop is made by a separate downward sweep to the right of the first down-stroke, which it crosses at about its middle, and finishes with a free and informal sweep far out to the left of the staff.

The *e* and *o* in the forged signature are of nearly equal size, the *o* finishing informally at the top and being disconnected from the *P* following, while upon the genuine the *e* and *o* are markedly disproportionate as to size, the *e* having

will and testament in the presence of us, who, at his request, were present at the same time, and subscribed our names as witnesses at the request and in the presence of said testator and in the presence of each other, this 25th day of July 1868.

Geo. P. Gordon

Henry Adams
Township of Woodbridge N. J.

George E. P. Adams
Township of Woodbridge N. J.

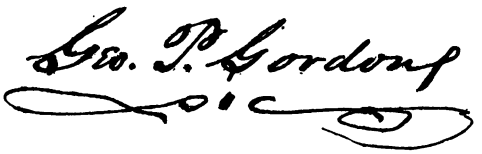
John Q. Adams
Township of Woodbridge N. J

a conspicuous center loop, and the *o* being small and like an *a* in form.

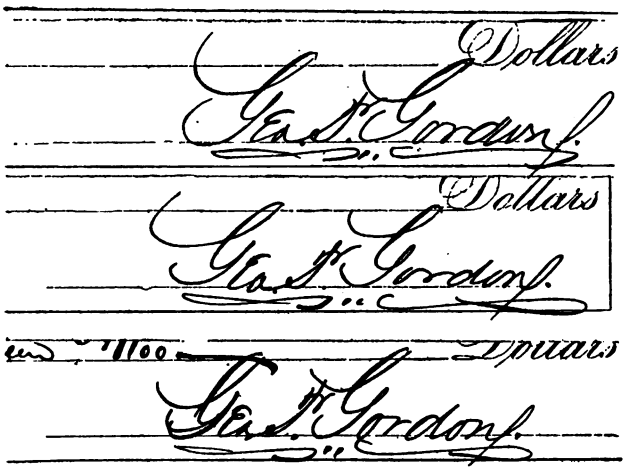
In the forgery the *P* is in its form after the manner of the genuine *P;* but the forger seems to have quite overlooked the fact that the staff is a thin, light *s*-like form connected with the preceding letter, while the top part of the letter is dwarfed to almost microscopic size and in strange disproportion to the other portions of the signature. The remaining part of the forged signature is composed of heavy, formal letters which are not even fair imitations of the light, facile forms and movements of the genuine. Especially is the heavy, stiff, awkward terminal loop of the *n* in "Gordon" in very sharp contrast.

The rubric underneath the forgery, in its tremulous, irregular, and broken lines, and heavy single blot at the center between its parts, is in striking contrast with the

FORGED SIGNATURE.



GENUINE SIGNATURES.



less conspicuous, smooth, graceful strokes under the genuine signature and the two light dots at the center. It will also be observed that after each of the genuine signatures is a period, which is not present after the forgery. After a full hearing of the case, the will was pronounced by the Chancellor to be a forgery by Henry Adams, one of the alleged witnesses to the will.

REDFIELD VERSUS REDFIELD.—The difficulty that confronts a forger, exercising even phenomenal ingenuity in contriving and rare skill in executing a forgery, is well illustrated in the case of Redfield *v.* Redfield, tried a few years since, at Syracuse, N. Y.

A claim was presented to the executors of the estate, aggregating nearly $10,000, in the form of a receipt given many years before by the deceased to his son for railroad stock, to be held in trust for the son's wife. The body of the receipt purported to have been written by one Z. C. Foot, an attorney, then deceased, and to bear the genuine signature of L. H. Redfield.

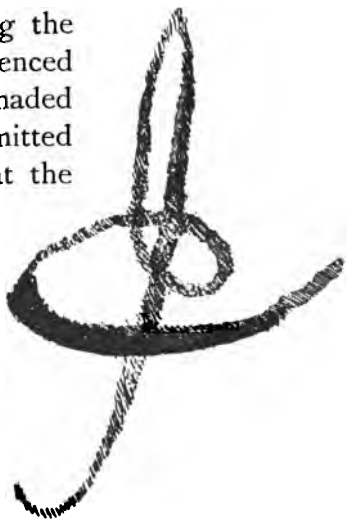
The receipt was submitted to Mr. Foot's law partner and others familiar with his writing, and all agreed that it was in Mr. Foot's writing. This phase of the case seemed therefore settled, when the receipt, with numerous genuine signatures of Redfield, was submitted to the writer for an opinion as to the genuineness of the signature upon the receipt.

Upon microscopic examination, it was apparent that the writing in the body of the receipt was manufactured, as was also the signature. There was ample evidence that the writing in the body of the receipt had been first drawn lightly with pencil and then carefully written over with a pen. In something over ninety instances, portions of the pencil lines remained visible alongside of the ink lines, and over one hundred shades on the letters had been touched on after the first writing; besides, the forger, not being sufficiently acquainted with the variations of Mr.

Foot's habit in writing, repeated too exactly the forms of certain letters and words, thus imparting a typey and lifeless effect to the general appearance of the writing. As a means of proof and illustration of the spurious character of the writing, the writer requested that a quantity of Mr. Foot's genuine writing be furnished him, which being done, it was photo-lithographed, when words, phrases, and letters were cut therefrom and arranged and gummed together in the form of the alleged receipt, thus presenting Mr. Foot's real handwriting as it should appear in the receipt if written by him. The variance between the genuine and forged writings, united with other internal evidence of forgery, was so plain that when confronted with the facts, the claimant withdrew the receipt and the case ended with a verdict in favor of the executors.

On the next page is presented a facsimile of the forged receipt in juxtaposition with that made up from Foot's writing. As specimens, eight of the retouched letters are indicated by numerals on the plate.

We here give a microscopic representation of one of the over one hundred retouched shades on the forged writing. One of the interesting mistakes of the forger was in the method of making the capital *I*. Mr. Foot always commenced his at the base-line and made an unshaded staff on an up movement, which admitted of a shade on the finishing stroke at the center; but the forger commenced his *I* with an unshaded initial at the center and finished with a shaded down-stroke for the staff, touching in the shades on the finishing line at the center afterward, an example of which is shown in the greatly magnified representation of the *I* in the right margin.



In consideration of love and affection I release and discharge to my son Lewis the loan made him upon ten (10) shares New-York Central Rail Road Stock and I hereby declare that I hold said Stock in trust for Mrs Jessy Redfield.

In witness whereof I have this 2d day of May 1862 at Syracuse N. Y. affixed my hand and seal.

Attest

E. C. Foot

L. H. Redfield

FORGED RECEIPT.

In Consideration of love and affection I release and discharge to my son Lewis the loan made him upon ten Shares of New York Central Railroad Stock and I hereby declare that I hold said Stock in trust for Mrs Jessie Redfield.

In witness whereof I have this 2d day of May 1862 at Syracuse N.Y. affixed my hand & Seal

attest.

Z. Charles Foot

L. H. Redfield

RECEIPT MADE UP FROM FOOT'S WRITING.

In consideration of love and affection I release and discharge to my son Lewis the loan made him upon ten shares of New York Central Railroad Stock and I hereby declare that I hold said Stock in trust for Mrs Jesse Redfield.

In witness whereof I have this 2d day of May 1862 at Syracuse N.Y affixed my hand & seal

L. H. Redfield

attest.

E. Charles Foot

RECEIPT AS FOOT WOULD HAVE WRITTEN IT.

THE MURDOCK CASE.—This case was tried at Willows, California, during April and May, 1899. The jury disagreed, standing six to six. By a compromise settlement, the claimant received $50,000.

William Murdock was a bachelor, and died at Willows on January 8, 1894, leaving an estate valued at $400,000, which was devised by a will to his sister.

After the will had been probated, Mrs. Gawn Murdock, whose husband, Gawn, was a distant relative of William, presented to the executors a note for $100,000, payable twenty years after date, with interest at one per cent. per month, purporting to have been given to her by William on September 5, 1877. The note, with accumulated interest, amounted to $360,000. Mrs. Murdock alleged that the note was made payable to her on the account of her father-in-law, Sam Murdock, in part consideration of large sums of money he had from time to time loaned to William, and a further consideration of his (William's) love and affection for Mrs. Murdock's two boys, for whose benefit the note was made payable to her, as a sort of trustee.

The history of the note, as related by Mrs. Murdock upon the witness-stand, from the time of its alleged signing to its presentation to the executors for payment, is most remarkable. It was in part as follows: The note was wrapped or rolled around a pencil, and placed in a phial, which was corked and sealed. This phial was placed in a bottle and corked, and both were then put into a larger bottle, which was also corked. The whole was then placed in a tin can, topped with a saucer, and was buried in the barn. It remained buried for ten or eleven years, until 1887 or 1888. It was then dug up and taken to Sacramento, and was there seen by several people, as a proposed business transaction in which Mrs. Murdock was interested occasioned a possible use for the note. After this, the note was placed in possession of Gawn W. Murdock and put in a box, which box was placed in the vault of the Bank

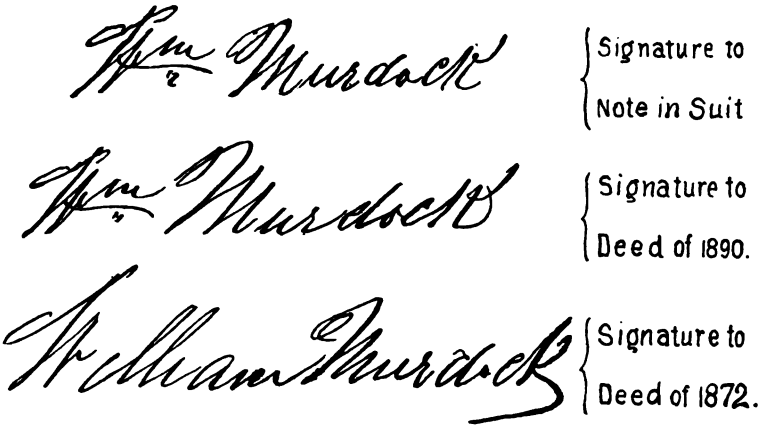
of Orland. It remained there until 1890, and was then taken by Mrs. Murdock to San Francisco, where, up to 1894, it was in the hands of a person there. From there it was placed in care of a party in Ohio, and came back into the possession of Mrs. Murdock, the plaintiff.

To sustain the note, the prosecution introduced the plaintiff, who testified that she had written the note at the request of Sam and William Murdock, and that William signed it in her presence. Gwan Murdock testified that William told him he had settled with Sam, and had given Mary (Gwan's wife) a note for $100,000. Two witnesses swore to having seen the note in the possession of Mrs. Murdock at Sacramento in 1888, and other witnesses gave testimony that William had at sundry times admitted the genuineness of the note.

The executors declined to pay the note, as to do so would absorb almost the entire estate. On the other hand, they denounced it as a forgery. The note was photographed, and a copy, with numerous standard signatures, was submitted to the writer and other experts, who united in pronouncing the signature a forgery; and furthermore, that two signatures to deeds from William to Mary Helen Murdock, one given in 1872, and the other in 1890, had served as copies from which to make the forged signature to the note. The "Wm." on the note had evidently been traced from the "Wm." on the deed of 1890. The "Murdock" embodied peculiarities in both the signatures to the deeds.

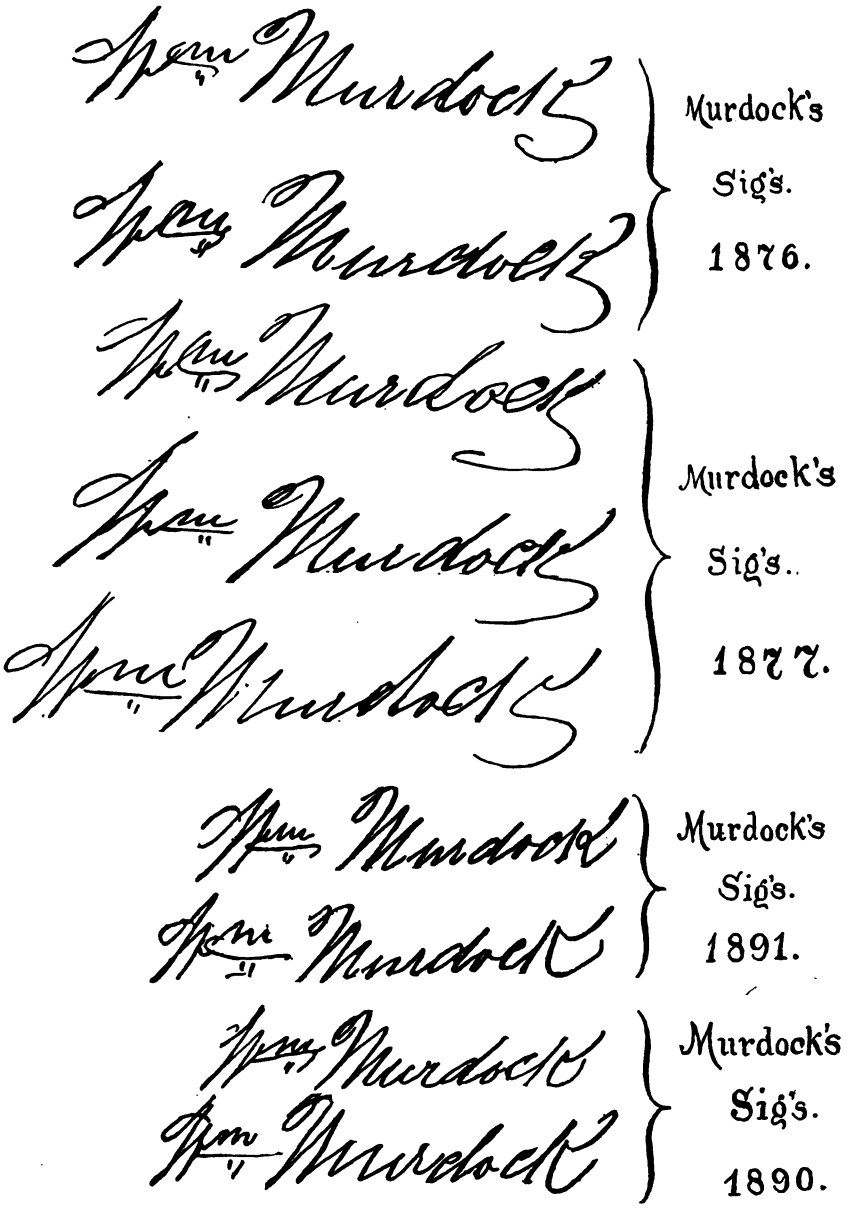
The "Wm." upon the deed of 1890 was a wide departure from the ordinary signature of Murdock, owing to a partial failure of the ink to flow from the pen in the first effort to make the initial part of the *W*, which Mr. Murdock invariably made by a separate down-stroke, as is shown in the first of these cuts. It was first made like the second

cut; but the ink failing to flow until the pen had moved down more than half the length of the stroke, (the dry pen-furrows being perfectly visible under a microscope, but not to the unaided eye,) he at once corrected it by making another stroke (see third cut, p. 181), causing a peculiar and unusual hook at the start. The second stroke intersected the first at its center (this is plain to the naked eye) and retraced much of the way the remainder of the first stroke, giving it an irregular and ragged appearance not habitual in Murdock's signature, thus making it an exception in form and character among nearly one thousand genuine signatures that were introduced for comparison at the trial. Excepting the unseen dry furrows, the peculiar form and ragged line, resulting from an accident, were exactly reproduced upon the note. This will be seen by the accompanying cut, at the top of which is presented the signature to the note, followed by the signature to the two deeds which had been in the possession of the holder of the note since the time of their date. The entire word "Wm." on the note was an exact counterpart of the same on the deed of 1890. Thus, if genuine, Wm. Murdock perpetrated on the note in 1877 the exact effect of an accident that did not



occur until 1890, and also made the same unusual dash under the *m* in "Wm."

If the signature to the note is not genuine, it was forged subsequent to the giving of the deed in 1890. Thirteen



years at least would have elapsed from the alleged making of the note, during which time it was found that Murdock's signature had materially changed; for in two hundred and seventy-three signatures written prior to December, 1879, every dash under the *m* in "Wm." was all to the right of the body of the *W*, while the terminal to the *k* swept down and far to the left under the signature. So if Murdock wrote the signature to the note in 1877 with an upturn for a terminal, he made use of a terminal and dash which did not manifest themselves in his signature until over two years after that time. It must have been a prenatal accident. In 1890, the up terminal, like that in the note, occurred twenty-nine times in thirty-nine signatures, and the dash under the *m* in "Wm." reached into the body of the *W* eighteen times in thirty-nine signatures. (In the cut on page 183 is presented Murdock's signature as written in 1876–77 and 1890–91.)

Besides these peculiar facts, the signature to the note bore all the internal evidence of forgery by tracing and drawing, such as hesitating, tremulous, and retouched lines, and the abraded surface and torn fiber of the paper where the signature was written.

THE MOREY-GARFIELD LETTER.—Very few cases have arisen in this country in which the genuineness of handwriting was the chief contention, and in which such momentous interests were at stake, as in the case of the forged "Morey-Garfield Letter." It was such as to arouse and alarm every citizen of the republic. A few days prior to the Presidential election of 1880, in which James A. Garfield was the Republican nominee, there was published in a New York Democratic daily paper, a letter purporting to have been written to a Mr. H. L. Morey, who was alleged to have been connected with an organization of the cheap-labor movement. The letter, if written by Mr. Garfield, committed him in the broadest and fullest manner to the

conservation of cheap labor through the importation of Chinese. At that time there was being waged a most widespread and determined movement on the Pacific Coast by the white-labor unions against the so-called Chinese cheap labor, and it was the obvious purpose of this letter to so arouse the labor vote, not alone on the Pacific Slope, but throughout the country, as to turn it against Garfield in the close States. Especially was this hoped for in California and Oregon. The publication of the letter was so close to the time of the election that it was hoped that it would reach the Pacific Coast just in time to produce its damaging effect upon Garfield, with no time for counter-action, by proving its falsity.

Immediately upon its publication it was submitted to the writer, who pronounced it, on its own internal evidence, a fabrication and fraud, while its comparison with Garfield's letters and signature further proved it to be a forged simulation of his writing. On pages 186 and 187 are presented facsimiles of the forged letter and one written by General Garfield.

The forged letter bore the following internal evidences of its fraudulent character:

First—The three instances of bad spelling, viz., the words "ecomoney" and "Companys" in the eighth line, and "religeously" in line twelve, are hardly consistent with General Garfield's education and experience.

Second—The misplacing of the dot to the *i* in the signature to the left of the *f* and over the *r* is a mistake quite natural to a hand unaccustomed to making it, but a very improbable and remarkable mistake for one to make in his own autograph.

Third—The great and conspicuous variations in the size and form of letters. As a specimen instance, see the three *t*'s in the fifth line. Variations so great in such close connection seldom occur in anything like an educated and practiced hand.

Fourth—The very long, full, and differently formed loops in the first lines of the letter, as compared with those in the latter part, and their varying size and shape through-

THE MOREY-GARFIELD FORGERY.

Personal and Confidential

House of Representatives,

Washington, D. C., July 23, 1880

Dear Sir,

Your in relation to the Chinese problem came duly to hand.

I take it that the question involved is only a question of private and corporate economy, and individuals or companies have the right to buy labor where they can get it cheapest.

We have a treaty with the Chinese government, which should be religiously kept until its provisions are abrogated by the action of the general Government, and I am not prepared to say that it should be abrogated, until our great manufacturing and corporate interests are concerned in the matter of labor.

Very truly yours
J. A. Garfield

H. L. Morey
Employers Union
Lynn Mass.

out it all, present extremes too great and forms too varied to be consistent with a hand so trained and skilled as that of General Garfield was known to be.

Fifth—The widely varying degree of pen-pressure is inconsistent with natural writing.

LETTER WRITTEN BY GARFIELD.

MENTOR, OHIO. Oct 23, 1880.

Hon Marshall Jewell
Chairman Rep. Nat. Committee
241 Fifth Avenue N.Y.

Dear Sir:

In my dispatches of yesterday and this Evening (which are also sent you by mail) I have denounced the Morey letter as a base forgery. Its stupid and brutal sentiments I never Expressed nor Entertained. The lithographic copy shows a very clumsy attempt to imitate my penmanship and signature. Any one who is familiar with my handwriting will instantly see that the letters are spurious.

Very Truly Yours
J. A. Garfield.

Sixth—The *J* in the signature has a slope inconsistent with the remainder of the signature and the surrounding writing. It is also too angular at the top, and too set and stiff throughout to be the result of a natural sweep of a trained hand.

We may safely assume that if General Garfield wrote the "Chinese Letter" the previous January, there was at that time no motive to write it in any other than his ordinary and natural hand; and, as we have before said, we know, by an extended and careful comparison, that the letter of denial is in his perfectly natural hand; these two letters should, therefore, be consistent with each other. Are they so?

First—Take the general pictorial effect and appearance of the two writings. They have slight general and no characteristic resemblance.

Second—Observe the unconscious habit with reference to the base-line of the writing in the "Chinese Letter."

Third—The *t*'s in the "Chinese Letter" are of variable length and shade, crossed in all kinds of ways, while in the other letter they are nearly uniform in height and shade, and are uniformly crossed, when single, by a short, deliberate line near the top and to the right of same, rarely touching the stem, *th* and *tt* only being crossed.

Fourth—The loops in the "Chinese Letter" touch the extremes for length and size, and are utterly without uniformity or consistency, while they generally lop forward; and the *f*'s and *p*'s are considerably bowed. In the genuine letter the loops are rather short and thin, frequently closed, or single lines; as in the *b*'s, *g*'s, and *y*'s, there is very little tendency to lop forward, while *f*'s and *p*'s are nearly straight.

Fifth—The general and unconscious habits of grouping and spacing the letters, as manifested in the two writings, have no similarity. In the "Chinese Letter" a peculiar

and striking habit of grouping will be observed in *on* in "Personal and confidential," line one, and words "should," lines twelve and fifteen, and elsewhere, which does not accord with General Garfield's habit. There is an appearance of this at the end of one or two lines in his letter, but it occurs from being crowded upon the margin of the original letter.

Sixth—The writing in the "Chinese Letter" is more compact and angular than in the other; the *p*'s are entirely different in form and finish.

Seventh—The variable slope of the writing in the two letters, that of the "Chinese Letter" being in the average about seven degrees more sloping than in the other.

Eighth—The signature to the "Chinese Letter" is a clumsy imitation of General Garfield's autograph. Observe the stiff, formal initial line of the *J*—its sharp, angular turn at the top, absurd slope and general stiff appearance, while the shade is low down upon the stem, and compare with the free, flowing movement round turns and consistent slope of the same letter in his genuine autograph. We might extend the comparison, with like result, to all the letters in the signature, and to a multitude of other instances in the writing of the body of the letter, but want of space forbids.

Many persons, and some professed experts, have remarked what appeared to them striking and characteristic resemblances between the "Chinese Letter" and General Garfield's writing.

Before commenting upon these, we would remark that it should be borne in mind that if the letter is not in the genuine handwriting of General Garfield, it was written by some person whose purpose was to have it appear so to be. That being the case, we should naturally expect to find some, even more, *forms* than we do, having a resemblance to those used by General Garfield. All these resemblances appear to us to be either copied or coinci-

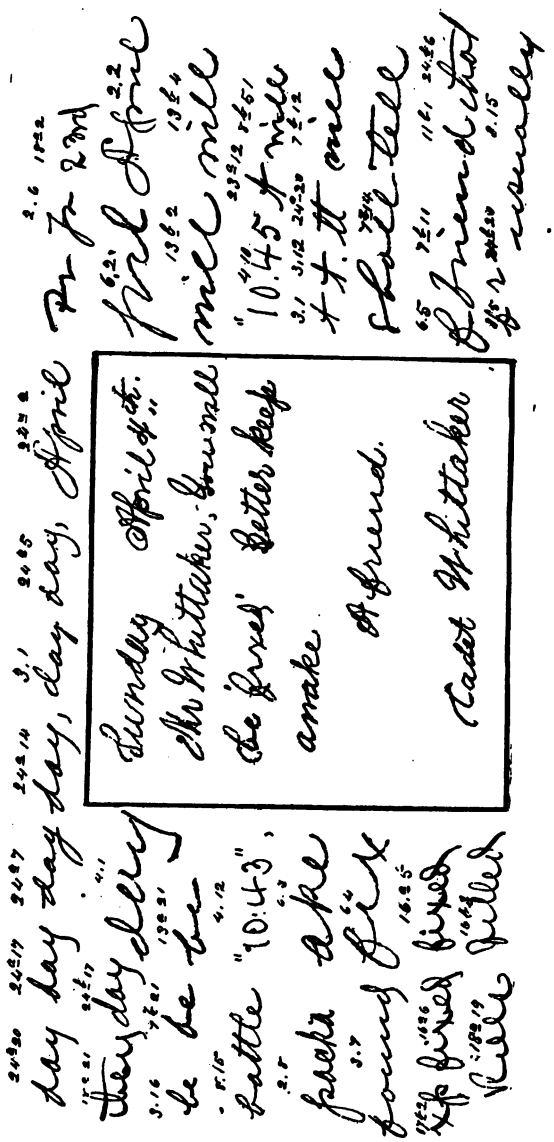
dences in the use of forms. There are no coincidences of the unconscious writing habit, which clearly, to our mind, proves the "Chinese Letter," as General Garfield well characterizes it, a very clumsy effort to imitate his writing. Indeed, the effort seems to be little more than an endeavor, on the part of the writer, to disguise his own hand, and copy a few of the general features of General Garfield's writing, adding a tolerable imitation of his autograph.

CADET WHITTAKER CASE.—Whittaker was a colored cadet, at the U. S. Military Academy, at West Point, New York. On the morning of April 6, 1880, he was found apparently unconscious in his room, bound and gagged, with his ears, hands, and feet bleeding from cuts which he alleged he had chiefly received while resisting an assault in the dark, from unknown assailants, presumably fellow cadets. Upon restoration to consciousness, he produced a note of warning which he alleged he had received two days before, cautioning him against some supposed bodily injury. Sensational reports of the supposed outrage were circulated by the press throughout the country, and an investigation was demanded. The alleged note of warning was deemed an important clew, as coming from some one who at least would have some knowledge of the perpetrators of the outrage.

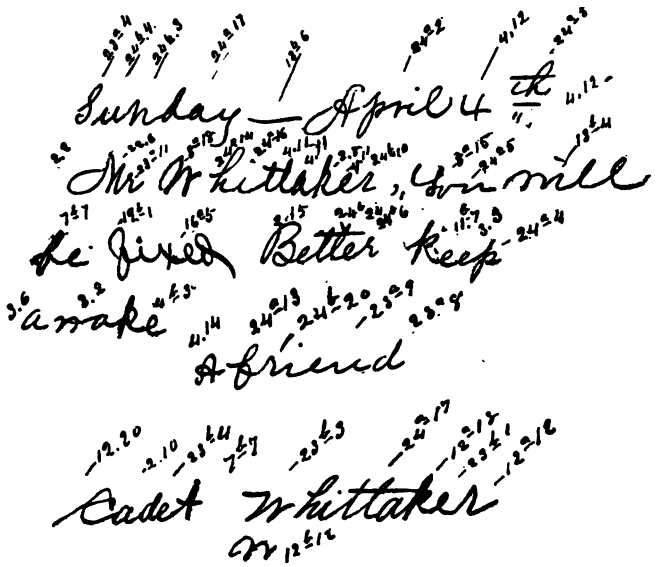
The cadets were assembled and all required to write from dictation a note containing substantially the same words as did the note of warning, and sign their names. Written pages were also torn from the exercise-books of many of the cadets, thus giving a specimen of writing by every cadet, and by many, two.

Five handwriting experts were separately called to West Point, including the writer; into the hands of each was placed the note of warning with three hundred and seven different pieces of writing, which were identified only by a number, all names having been cut from the several writ-

ings, thus precluding any possible exercise of prejudice or favor on the part of the experts. With astonishing unanimity the writings selected as being the same as the disguised hand in the note of warning proved to have been written by Whittaker himself.



Inclosed by the black border is a facsimile of the note of warning. Around it are grouped letters and words cut from Whittaker's writing. The whole is a reproduction of one of the exhibits presented to the Court by the writer in illustration of his testimony before the United States Court-Martial in the case.



The above is a copy of the note of warning, made up from letters and words taken from Whittaker's writing, the numerals indicating the number of the exhibit and line from which each was taken.

A court of inquiry was convened, before which the experts and other witnesses gave testimony respecting the alleged outrage, and after a careful review and analysis of the testimony reported that Whittaker's injuries were self-inflicted, and that the so-called note of warning was written by Whittaker to himself.

This finding by the court of inquiry was unsatisfactory to Whittaker and his friends, and they succeeded in having a court-martial convened in New York City, in February, 1881, which continued its sessions for nearly four months, and unanimously found Whittaker guilty of perpetrating the alleged outrage upon himself and writing the note of warning.

THE ALLEGED COLLUM–BLAISDELL FORGERY.—This case will justly rank among the celebrated criminals trials of this country, alike for the large sum involved (nearly $300,000), the high standing of the accused, and the herculean efforts to save him from a crime of which he was confessedly guilty.

Mr. John T. Blaisdell was one of the pioneers of the city of Minneapolis. He was possessed of a great fortune, and had formerly employed Collum as his attorney, in which capacity he had an abundant opportunity to familiarize himself with Mr. Blaisdell's business, as he was most implicitly trusted by the millionaire.

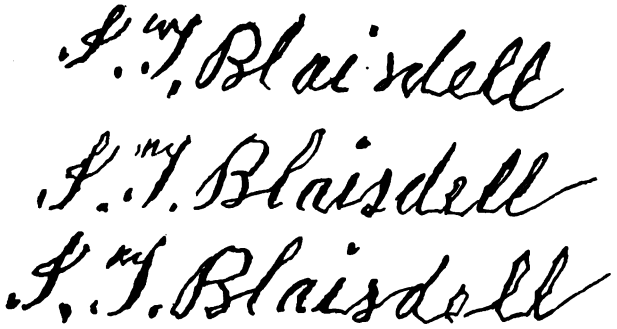
At different times Mr. Blaisdell had accommodated Mr. Collum by indorsing notes amounting to some ten or fifteen thousand dollars. Meeting one day an official of one of the banks of the city with which he had dealings, Mr. Blaisdell was asked how much of Collum's paper he had indorsed. He replied that he had indorsed something less than fifteen thousand dollars. To his astonishment, the banker replied that his bank alone held a very much larger sum than that. An investigation was at once set on foot, when it was found that notes having Mr. Blaisdell's indorsement were outstanding to an aggregate sum of $283,000.

A conference of Mr. Blaisdell's friends and bankers holding the forged notes was called, at which Mr. Collum was present and confronted with the charge of forgery. He confessed to the forgery and expressed his readiness to be taken to the penitentiary. But subsequently, after consulting with his friends and attorneys, Mr. Collum denied that this confession was true, and employed four of the shrewdest lawyers to be had to defend him in a trial for forgery.

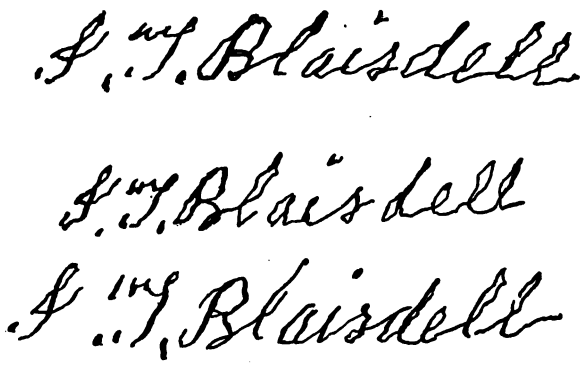
On the stand Mr. Blaisdell denied having written the signatures to the notes on which the indictment was based. Four experienced handwriting experts and five bank cashiers pronounced the questioned signatures to be forgeries. Against this mass of positive testimony were several alleged experts and seven bank officers (all but two of the latter personally interested in the paper in dispute), who declared the signature genuine. The trial lasted over four weeks, and resulted in a disagreement of the jury. No attempts have ever been made to recover on the notes from Blaisdell as indorser.

We herewith present two groups of signatures, one of Mr. Blaisdell's and another of the alleged forgeries.

Group 1 represents three admittedly genuine signatures of Mr. Blaisdell, which were used as standards for comparison by the witnesses for the State. It will be noticed that the down-strokes are uniformly broad, shaded lines. While they indicate a hand that is heavy and unpracticed, they are fairly uniform and consistent with each other, and are in all essential respects a harmonious family group.



(1) ADMITTEDLY GENUINE SIGNATURES.



(2) ALLEGED FORGERIES.

Group 2 represents three of the alleged forged signatures. Compare the down-lines in these with those in Group 1. It will be noticed that in this group, unlike the others, there is no uniformity of shade whatever, some being very broad, while others are narrow and light. In this respect, therefore, they are patently inconsistent and inharmonious as between themselves, and when compared as a family group they do not at all fraternize with Group 1. Note the hard terminal lines as compared with those in Group 1. Note the light, wavy lines in the first stroke on the *a*'s and *d*'s in Group 2, as compared with the heavy, firm corresponding lines in Group 1. Also the staffs of the *d*'s in Group 1, which are single shaded strokes, while in the other (as is more particularly apparent upon examination with a glass), they consist of light interlacing up-and-down lines, while the apparent shading is merely a flowing over of ink between these lines.

The first signature of Group 2 is a copy of the alleged forged signature which was the basis of the indictment. It was the unanimous opinion of the experts for the prosecution that the alleged forged signature was made by tracing it over a genuine signature, hence in its general appearance as to length, slant, spacing and outline of letters it would necessarily conform closely to Mr. Blaisdell's average signature. As a matter of fact this is the case, but it does not follow that a tracing would preserve the quality of the line, shading, and many of the more delicate characteristics of the genuine signature, and it was upon most patent discrepancies in these respects that the experts reached the conclusion, beyond any sort of doubt, that these signatures were spurious.

As we have said, it is difficult to develop these points perfectly by comparison of cuts, as, of course, the quality of line cannot be reproduced to represent accurately the effect in the original signature. If the reader will take a piece of glass, place upon it a signature written on ordinary non-trans-

parent writing paper and over this another piece of paper of the same quality, and hold it up in front of a light, he will have no difficulty in seeing the general outline of the signature, and by taking pen or pencil can duplicate that signature precisely as to general direction and outline. Two thicknesses of paper, however, will prevent, even by the use of the strongest light, the detection of all the slight peculiarities of waver and tremor, and the minute changes of direction, retracing of lines, the nice variations of shade as to degree and location that invariably occur, especially in such signatures as these in question; nor can he with any degree of accuracy simulate the quality of line which is an individual characteristic of every writer. Mr. Blaisdell's signatures are conspicuous for a certain tremor, as will be seen by reference to any of them here presented. The artful forger, therefore, in simulating these signatures, would not fail to try to simulate the frequent minor changes of direction which this tremor produces. As they are too minute and delicate to be observed and simulated by tracing, he must rely on his own ingenuity to put them in so as to resemble the genuine. Now, it is in these precise particulars that the strongest points were made by the experts for the State. For instance, in the forged signature to which we have referred, are noted, under the microscope, eighty-seven distinct changes of direction of line or tremors. In the five genuine signatures that follow, the changes of direction are twenty in the first, twenty-five in the second, fourteen in the third, thirty in the fourth, and twenty-five in the fifth, making an average of twenty-two and two fifths — eighty-seven against twenty-two and two fifths. Very decidedly, then, the forger overdid this matter of tremor. There is also to the expert's practiced eye just as wide a difference between the genuine and the spurious in the pictorial effect and in the quality of line before noted.

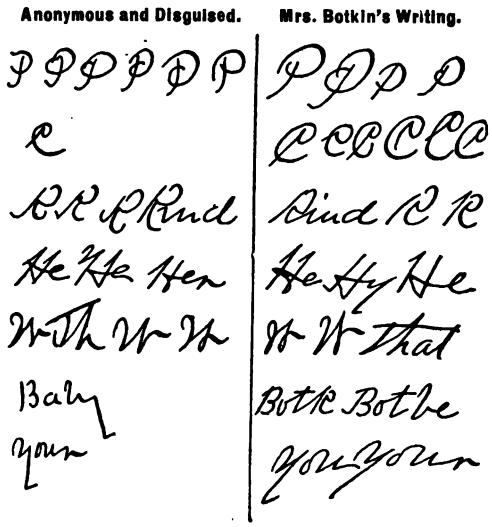
THE BOTKIN CASE.—The peculiar atrocity of this crime marks it as one of the *causes célèbres* of this country. The paramour of Mrs. Botkin, who resided at San Francisco, California, was one Dunning, whose wife and child lived temporarily with her father at Dover, Delaware. Dunning went East, and after his arrival there had written to Mrs. Botkin that he proposed establishing himself in New York and intended to provide a home there for his wife and child. Shortly after Dunning's departure from San Francisco, Mrs. Dunning received several anonymous letters in a disguised hand, purporting to come from friends in that city, recounting the amours of Dunning, and advising her to secure a divorce from him, for which (as was set forth in the anonymous letters) there was ample ground.

This scheme did not succeed. A few months later Mrs. Dunning received through the mail a box of candy, of which she and several members of the household partook. Four of the partakers were soon taken violently ill, Mrs. Dunning, her sister, and two children. In a very short time, the two women died; the children finally recovered. The symptoms were proven to be those of arsenic poisoning. A post-mortem examination was held, chemical analyses of the contents of the stomachs made, and the remaining candy was proven to contain arsenic. The wrapper of the box, containing the superscription, a short note placed inside with the candy, and two of the long anonymous letters had fortunately been preserved. The box was traced to San Francisco, and the place of its purchase was discovered. Circumstances soon developed that placed Mrs. Botkin under suspicion. Specimens of her handwriting were procured and, with the anonymous letters, were placed in the hands of experts for comparison, who reported that they were all written by the same person. Arrest and indictment followed, and in December, 1898, after a protracted trial and an able defense, she was convicted and sentenced to prison for life.

The identity of her handwriting with that upon the wrapper of the box and the note inclosed, was chiefly instrumental in her conviction.

Below we present, in juxtaposition, a few of the most striking characteristic forms of her genuine and disguised writing, as they were presented to the court and jury.

Handwriting experts, Carl Eisenschimel and Theodore Kytka, together with the writer, testified for the prosecution.



Dr. Kennedy Case. — On August 15, 1898, Emma Reynolds was murdered in a room in the Grand Hotel, New York. On her person was found a check for $13,000, payable to her order, drawn by "Dudley Gideon" on the Garfield National Bank, and indorsed by S. J. Kennedy. When the check was taken to the Garfield National Bank by the police, it was found that "Dudley Gideon" did not have an account there, and was unknown, being undoubtedly a fictitious person. The indorser of the check, S. J. Kennedy, was known at the bank, as he had an account there.

In making an examination of the room where the murdered woman was found, Captain George McClusky, Chief of Detectives, found some scraps of paper in the waste-

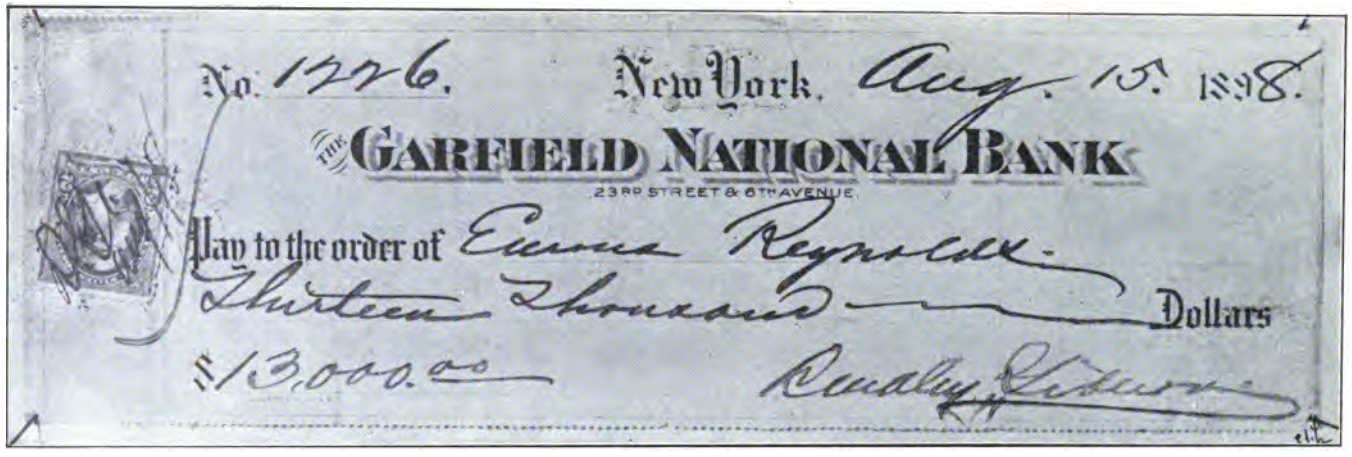
basket and on the fire-escape just outside the room. These, when pieced together, disclosed the address, "E. Maxwell and wife, Grand Hotel." On the reverse side was printed "R. Phillips' Milk of Magnesia, 12 oz." The writing was proved to be Kennedy's, and presumably was given to Miss Reynolds that she might make no mistake in registering by a new and fictitious name, as directed by Kennedy.

The handwriting part of the case was put in the hands of Mr. Wm. J. Kinsley, of New York, who called Mr. Ames to his assistance. By comparing the two pieces of writing with the standard writing of Dr. Kennedy, the experts gave it as their opinion that all the writing in question was done by Dr. Kennedy.

The police theory of the case was this: Dr. Kennedy had done some dental work for Miss Reynolds, and through this connection had learned that she had money, and that she was willing to gamble on the horse-races. He then unfolded to her a plausible scheme by which much money could be made from a small investment. Believing in the success of the venture, she withdrew five hundred dollars from her bank, which sum she placed in Dr. Kennedy's hands, to carry through the deal. A few days later she engaged the room in the Grand Hotel, registering as "E. Maxwell and wife." She said that Mr. Maxwell would be there in the evening. Mr. Maxwell arrived at a later hour. He was identified during the trial by several of the hotel employees as Dr. Kennedy.

It would seem probable that Dr. Kennedy gave Miss Reynolds the bogus $13,000 check for her share of the profits on the five-hundred-dollar investment. Her familiarity with business methods (she was at one time cashier in a Wall-Street restaurant) caused her to request Dr. Kennedy to indorse the check. He complied with her request, but soon saw that the indorsement was a fatal error, for the presentation of the check at the bank would lead to

BOGUS CHECK.


No. 1276. New York, Aug. 15. 1898.

THE GARFIELD NATIONAL BANK

23RD STREET & 6TH AVENUE.

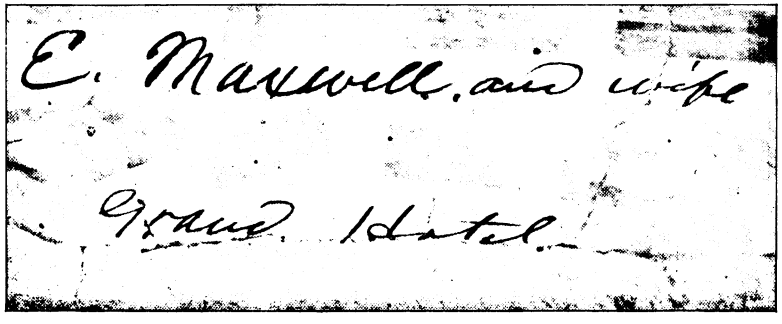
Pay to the order of Emma Reynolds

Thirteen Thousand Dollars

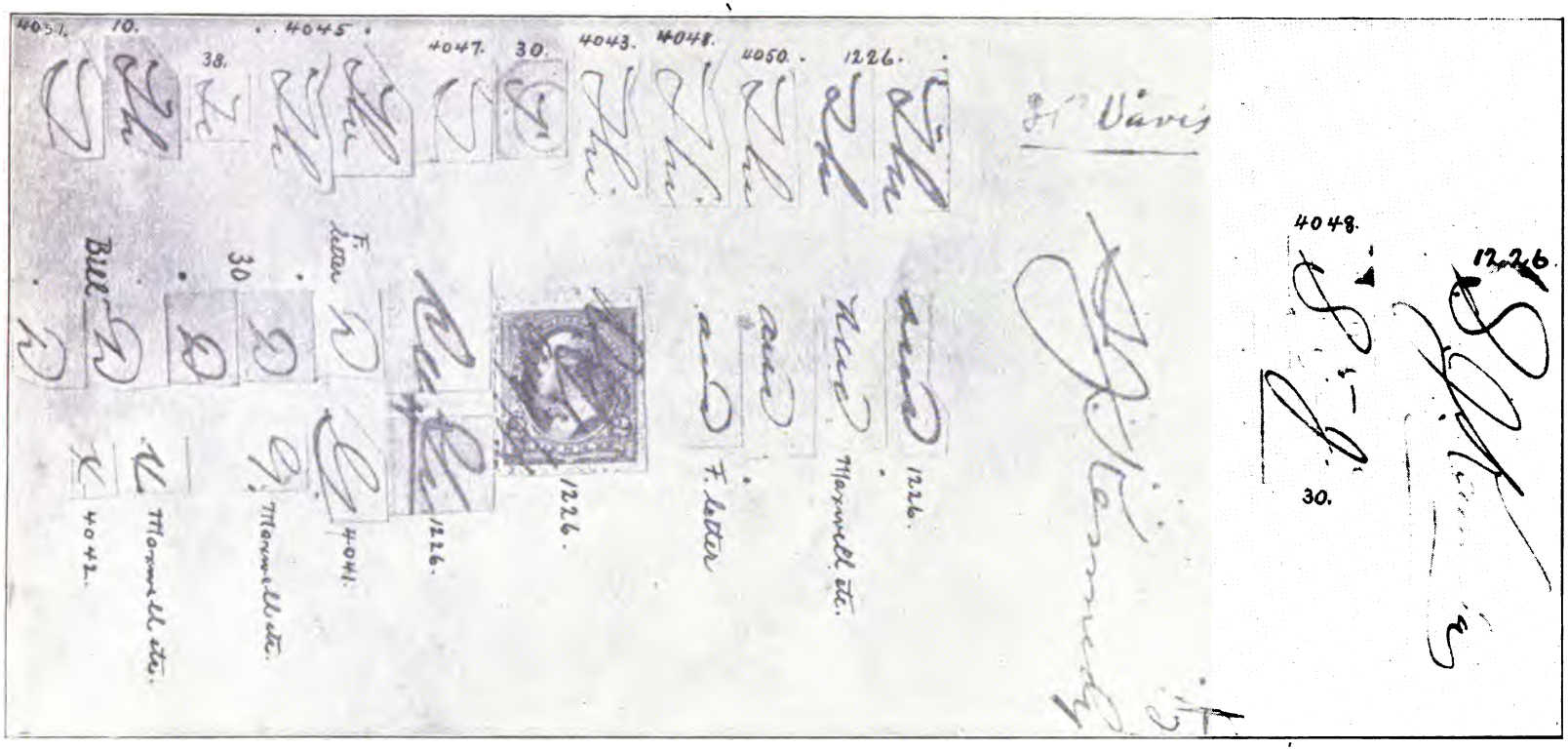
$13,000.00

Dudley Gibson

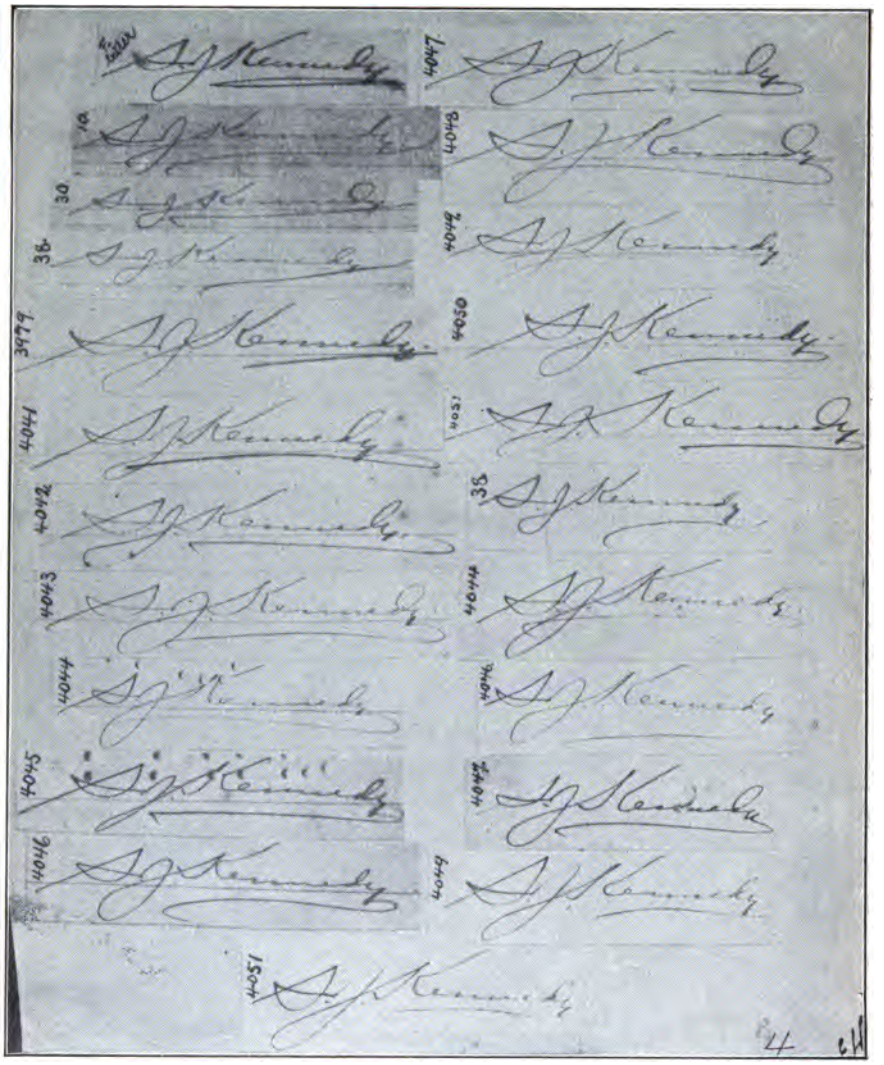
SCRAPS FOUND ON FIRE-ESCAPE, PASTED TOGETHER.


E. Maxwell, and wife

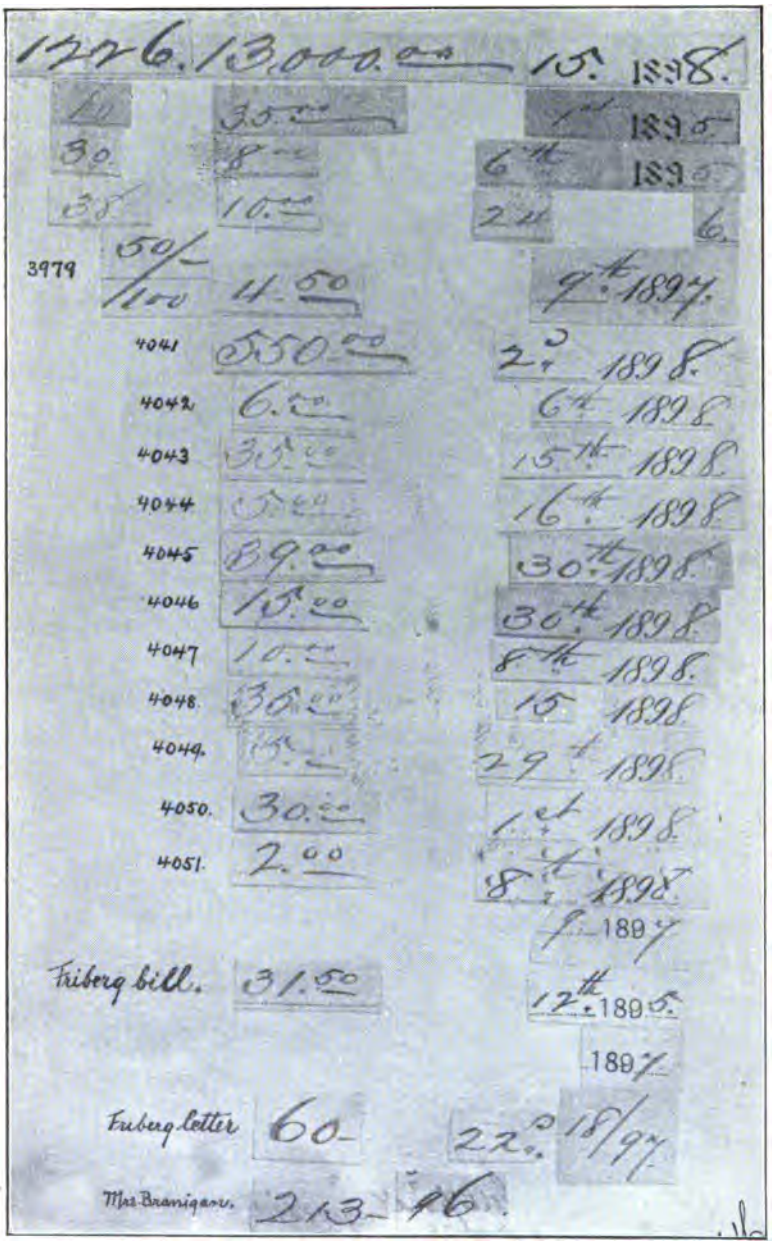
Grand Hotel



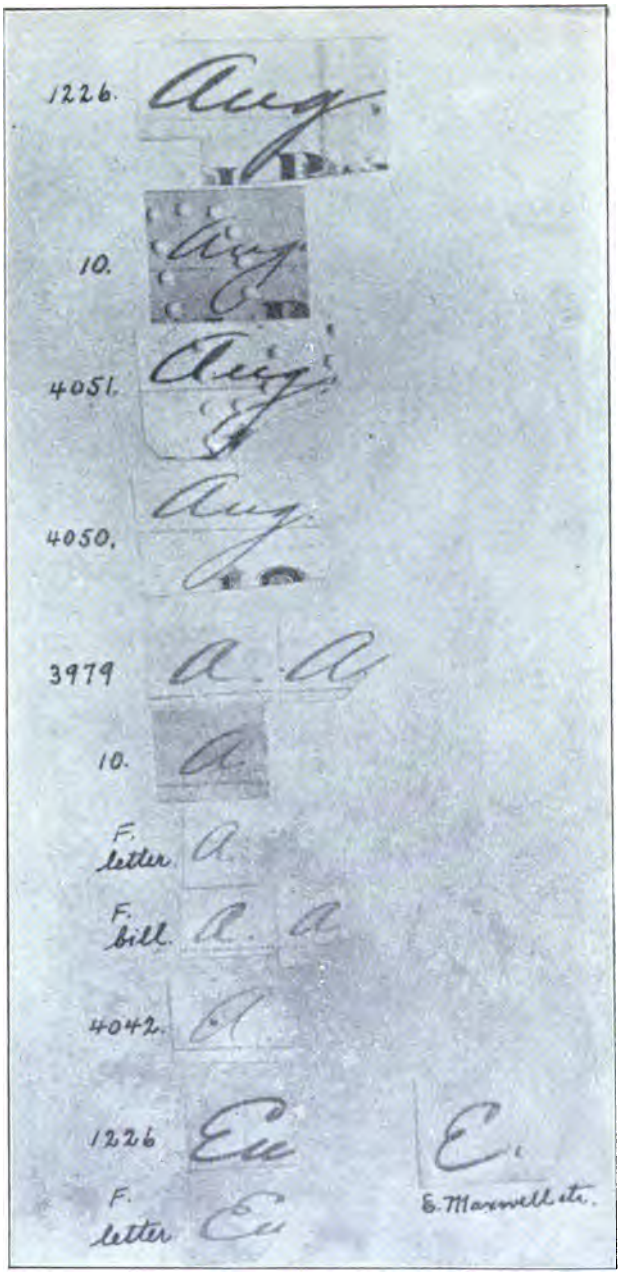
No 1226, at top of cut, is the indorsement on back of bogus check. Other writings having the same number are from the body of the check. Those designated by other numbers are from Kennedy's writing, given for comparison.



SIGNATURES OF KENNEDY.
(For comparison with the indorsement upon back of check.)



THE FIGURES IN THE CHECK.
(For comparison with those made by Kennedy.)



Nos. 1226 are from check; the other numbers are from Kennedy's writing, for comparison.

his exposure, arrest, and downfall; and it is believed that he went to his home in Staten Island, made the lead-pipe bludgeon with which the murder was committed, having arranged the Grand Hotel appointment in order to get possession of the bogus check by whatever means that might prove necessary. Her satchel was cut open in the apparent search for the check; but the important document was hidden safely under her corset, where it was found by the coroner when making the autopsy. After a trial notable in the annals of New York criminal jurisprudence, Dr. Kennedy was convicted and sentenced to die in the electric chair.

The handwriting first directed attention to Dr. Kennedy, and furnished the strongest link in the chain of evidence against him. The illustrations shown herewith are facsimiles of the face of the check, its indorsement, and the "E. Maxwell and Wife" note, together with characteristic bits of the standard and disputed writing juxtaposed, to show at a glance the points to be compared. The photographs were made by Dr. Ernest J. Lederle, City Chemist, under direction of Mr. Kinsley, who arranged them for reproduction, and are excellent models of what such photographs should be both in arrangement and handling.

HUNTER–LONG FORGERIES.—James and John Hunter were brothers. They and James Long were natives of the north of Ireland and were schoolboy chums. They came to Philadelphia over fifty years ago, where they engaged in business. The Hunters were industrious, economical and enterprising, and in their joint business of manufacturing were so prosperous as to amass a fortune estimated at over a million of dollars. For integrity they stood above reproach. In fact, John Hunter was known by the *sobriquet* of "Honest John Hunter," and when, a few years since, frauds were discovered in the management of the municipal affairs of the city, and a committee of citizens organ-

ized for the purpose of correcting frauds and abuses, John Hunter was selected by the committee to be the receiver of taxes.

Being thus called from his office for a great part of the time, the business management of the Hunters devolved upon James, who engaged in large outside speculations, in which he sustained very heavy losses, causing embarrassment. He applied for relief to his old schoolboy friend and chum, James Long, who also had been exceedingly prosperous, first as a manufacturer and afterward as a banker, through which he had become one of the solid financial men of Philadelphia. James Hunter, in appealing to his friend Long, represented that he had invested large sums in promising real estate, and that he required only temporary aid to enable him to realize large profits on his investment, and thus induced Mr. Long to give him accommodation notes for large amounts, aggregating, in 1876, over $100,000. At this time, in consequence of the difficulty experienced in collecting the security notes given by Hunter, Mr. Long became doubtful as to Hunter's financial standing, and urged that the amount of the loans be constantly reduced. In his embarrassment, Mr. Hunter had fallen into the habit of meeting the notes, as they fell due, by issuing new notes in their stead; but Mr. Long demanded that each new note be made for a less amount than the one which it was to redeem, Mr. Hunter advancing the difference. By this process, the aggregate of the accommodation notes due Mr. Long from the Hunters was reduced, in 1884, as Mr. Long supposed, to between $50,000 and $60,000.

At a meeting of the trustees of the Eighth National Bank of Philadelphia, at which Mr. Long, as vice-president and trustee, was present, he was astonished at hearing several of his notes, in favor of James and John Hunter, called off as offered for discount. These, from their dates and amounts, he knew he had never signed. Investigation followed at once, when to Mr. Long's astonishment and

chagrin the notes proved to be forgeries perpetrated by his friend, James Hunter.

The worthless paper amounted in the aggregate to over $400,000, and the culprit hastily fled from the city to avoid arrest. Mr. Long immediately redeemed all of the genuine outstanding notes which he had given to the Hunters, to the amount of between $50,000 and $60,000. Of course, as the forged notes were presented, he denied his signature and declined payment.

Subsequently, suit was brought by the Union National Bank of Mt. Holly against the Ninth National Bank of Philadelphia, to recover the money paid for one of the forged notes, which it had purchased as an investment. The suit was brought on the allegation that the note was a forgery sold by the Ninth National Bank. That institution defended the suit on the ground that the signature was genuine. We quote from a report by the *Philadelphia Press*:—

"Nearly the entire morning was consumed by experts Daniel T. Ames, of New York, and Thomas May Peirce, of this city, in testifying that the signature to the note in suit was a forgery. Mr. Ames took with him to the witness-stand a big valise. He handed the court clerk his card and affirmed. He is considered one of the best experts in the country. It was through his testimony that ex-Cadet Whittaker was suspended from West Point. When the Morey letter was published, Mr. Ames was the first to pronounce it a forgery, as was afterwards proven. He told Mr. Fletcher in a calm, dignified, and soft voice that he was a 'teacher, author and publisher' concerning the science of writing, and was an expert in 'questioned writing.' He unfastened his valise and brought forth a microscope which looked so much like a Gatling-gun as to cause Mr. Fletcher to ask if it 'went off.' 'No, sir,' replied Mr. Ames, stopping in his work of adjusting the lenses and looking at Mr. Fletcher in a patronizing way; 'not while I 'm handling it.' The answer caused a laugh at Mr. Fletcher's expense. Taking the alleged forged note and a genuine signature of Mr. Long, the expert traced on a blackboard a copy of each, and explained the differences to the jury and let them see for themselves what the signatures looked like under the lenses. The points he made were, that while

there was a good attempt made to simulate the general characteristics of Mr. Long's writing, yet there was a decided failure; that the forger was so studious in his efforts, in some details, that he made a blunder in not writing closely upon the base-line, as was the fact in all of Mr. Long's signatures; that the forgery showed a fine knowledge of the science of writing, which is not seen in Mr. Long's; that under a microscope the writing was laborious, and the unequal distribution of the ink showed that the signature was written by 'hitches,' and not as when written freely by Mr. Long; that nervousness was evident, and that the point to the terminal of the *s* was made with two marks of the pen."

Immediately after the close of Mr. Ames's testimony (presumably from being convinced that the signature was forged), the President of the Ninth National Bank, who sat in the court-room, announced his readiness to pay the amount of the note with interest, which he immediately did in open court, and the suit ended without the defense calling a witness. This ended all efforts of the holders of the forged notes for their collection.

Testifying by experts in the courts of Pennsylvania was especially difficult from the fact that under the law of that State an expert was not permitted to make any comparison between the disputed handwriting and the genuine, being only allowed to speak from the internal indications of forgery.*

The following reasons were presented by Mr. Ames for believing the signature to be a forgery. By comparison of the writing in the body of the note with that of the signature, he believed that it was all written by one hand. This was apparent from the fact that certain characteristics of the signature were coincident with corresponding letters in the body of the note.

Yet, while the signature appeared to have been written by the same hand as that of the body, there were many differences which he could not harmonize with the ordinary

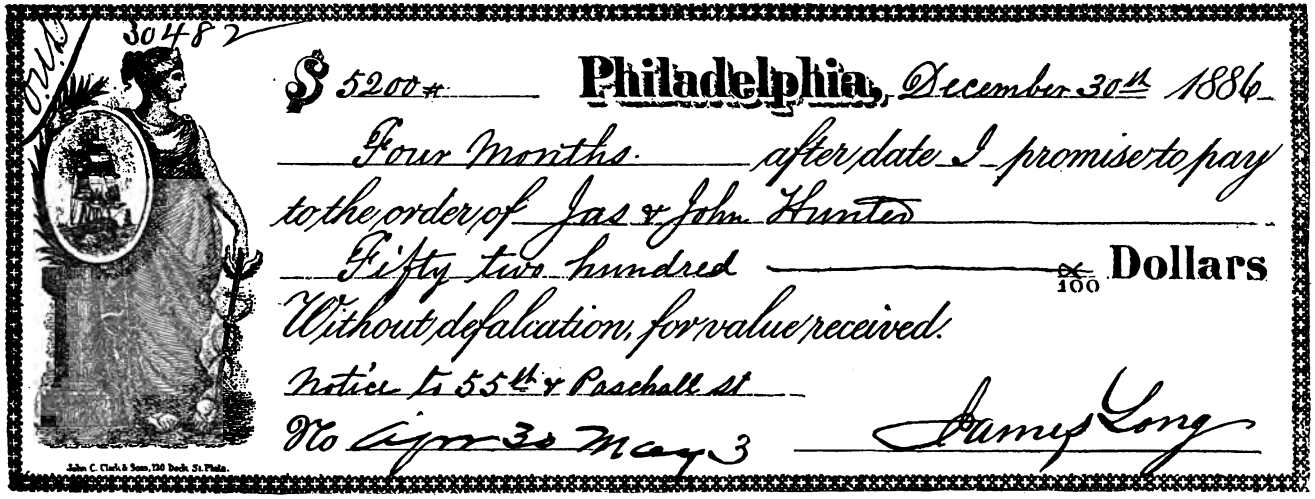
* The law has since been so modified as to permit expert comparison of disputed writing with that proved to the satisfaction of the court to be genuine.

habit of the writer as manifested in the filling of the body of the note. For illustration—in the body of the note were two *J*'s which were made nearly straight and central upon the base-line, indicating that this was the natural habit of the writer, while in the signature was a *J* of another type, and made above the base-line. His inference was, that the *J* in the signature was an imitation of another writer, and that the forger, when departing from his customary habit of making a long straight *J* central upon the base-line, in the attempted imitation, by sheer force of habit carried the connecting line into the *a* considerably above the base-line, as will be seen in the examples. This was the fact with all the forged signatures. The form of the *a* in the signature was the same as in "James" in the body of the note.

The *m* was of the same character as the *m* in the date-line of the note. The *n* in "Long" was of the same character as the *n* in the word "Hunter" and elsewhere in the body of the note. The *s* in the signature was in the main the same as that in the body of the note; but to the letter was appended a projection which was not in accordance with the naturally written *s* in the body of the note; hence the inference that it was a simulation. Moreover, it was made in two parts, having first been ended abruptly and then pieced out, in order to give it the point, which indicated that it had been manufactured in imitation of another form. The *g* in "Long" was a very long full loop ending with a very formal hook, while in the body of the note the loops are short. Hence the inference that the *g* in "Long" is a simulated letter.

The whole signature is written considerably above the base-line. In Mr. Ames's opinion, this might result from two causes: First, it is apparent from an examination of the naturally written *J*'s in the body of the note that it was the habit of the writer to divide these letters about equally above and below the base-line, and to join the *J* to the *a*

FORGED NOTE.



30482

$ 5200 # Philadelphia, December 30th 1886

Four Months after date I promise to pay

to the order of Jas & John Hunter

Fifty two hundred ~~00~~/100 Dollars

Without defalcation, for value received.

Notice to 55th & Paschall St

No Apr 30 May 3 James Long

John C. Clark & Sons, 720 Dock St. Phila.

GENUINE SIGNATURES.

2 James Long

3 James Long

ANOTHER FORGED SIGNATURE.

1 James Long

at the middle of the staff, the *a* resting upon the base-line. The fact was that the writer in simulating a signature wherein the *J* was made entirely above the base-line was lead, by force of habit, to unconsciously join the *a* to the *J* at its center, which was considerably higher up than when made in connection with the habitual form of the *J*, thus raising the *a* above the base-line. Beginning thus, the entire signature was continued in that manner. Second, the forger being particularly intent upon the formation of his letters and their combination, would be quite likely to overlook the mere circumstance of the relation of the original signature respecting the base-line, and fail to properly follow it. These were the principal reasons presented by Mr. Ames for his belief that the signature to the note was a forgery.

By comparison of the genuine signature of Mr. Long with the forged, the evidence is greatly strengthened, viz: It will be observed by reference to the cuts that Long's *J* is so adjusted to the *a* as to place it and the entire signature nearly upon the base-line, his *a* itself being a very long, narrow closed letter, while in the forgery it is larger, fuller, and more open. Long's *m*'s and *n*'s begin with light strokes closed the whole length, the last stroke being longer and heavier than those preceding, while those in the forgery are the reverse, the first strokes being the longest, and the lines closing only half way. Hunter was the more systematical writer, and overshot Long in the quality of the writing. This is a common difficulty when a more skilled writer attempts to forge the writing of one less skilled; and, *vice versa*, an unskilled hand cannot rise above its own art to simulate the writing of one far superior to it in artistic skill. These facts are often the uncovered tracks by which forgery is trailed and demonstrated. It will also be observed that Hunter followed his own more upright slant in the forgeries.

RAISED DRAFT BY CHARLES BECKER.— It is probable that no finer exhibition of the forger's skill has ever been seen in this country than that represented in the accompanying cut of a draft raised by the notorious forger, Charles Becker, from twelve dollars to twenty-two thousand dollars.

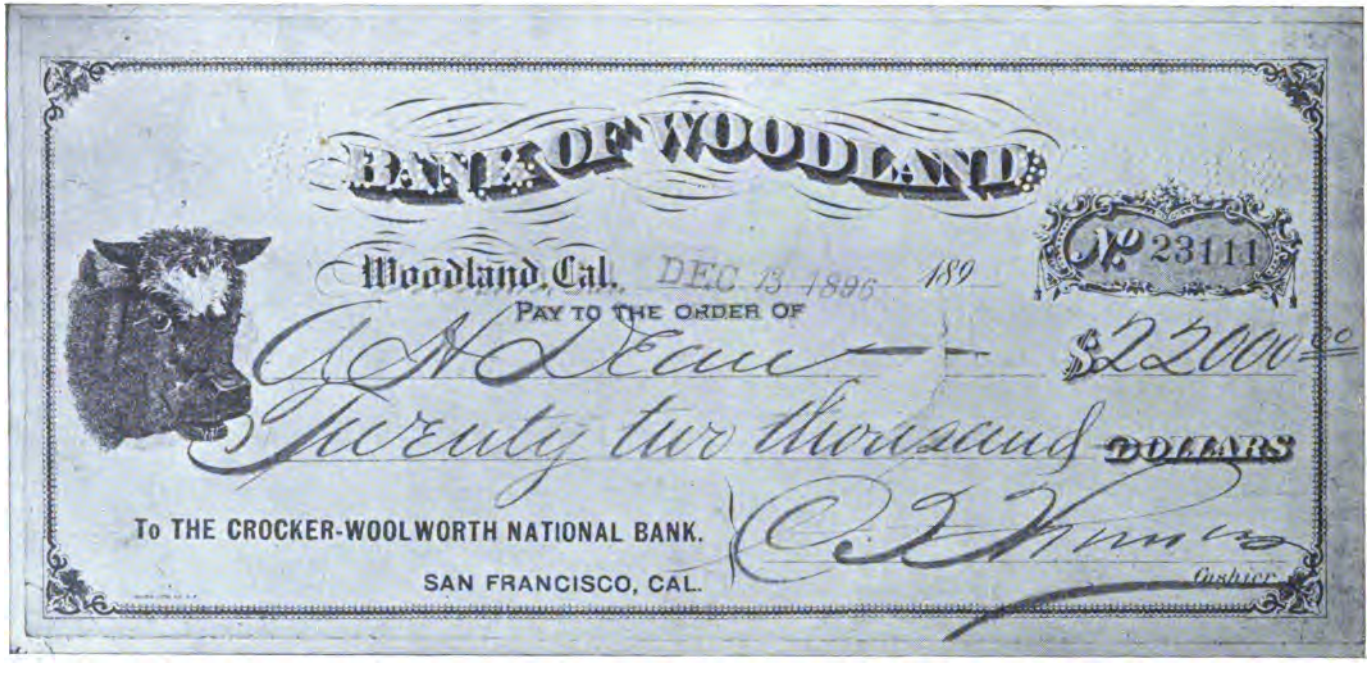
A draft was procured from the Bank of Woodland, California, on the Crocker-Woolworth Bank of San Francisco for twelve dollars, and then raised to twenty-two thousand, and gold coin to that amount was received on the draft from the Nevada National Bank, also of San Francisco, where one of the gang of forgers associated with Becker was well known, having been for some time a depositor with the bank.

Through the persistent efforts of the Bankers' Association, aided by Pinkerton's National Detective Agency, the forgery was traced to Becker and his associates, all of whom were arrested and convicted, except Becker, the jury before whom he was tried having disagreed. At the opening of a second trial he pleaded guilty, and gave a full history of the forgery and the method by which it was perpetrated. He received a sentence of two years' imprisonment at San Quentin, California.

The method of performing the work was most ingenious, and was executed with such consummate skill as to well-nigh defy detection by the most skilled and astute banker. Indeed, but for the outside facts it is highly probable that no banker would have ever observed anything wrong with the draft. But when it was returned to the Bank of Woodland, calling for twenty-two thousand dollars in place of twelve dollars, for which it was originally issued, the fact that a forgery had been committed was obvious. The method, however, remained largely a mystery until it was discovered by most elaborate study under a microscope.

The original draft had all the usual safeguards against forgery or alteration, being upon safety paper, — that is, being printed over a sensitive tint, which was supposed to

FACSIMILE OF THE RAISED DRAFT.


BANK OF WOODLAND

Woodland, Cal. DEC 13 1896 189

No 23111

PAY TO THE ORDER OF

G. H. Deane — $22000.00

Twenty two thousand DOLLARS

To THE CROCKER-WOOLWORTH NATIONAL BANK.

SAN FRANCISCO, CAL.

C. E. Kimes

Cashier

inevitably show the slightest erasure or change made upon its surface. Also, the figures expressive of the amount of the draft were stamped out in two places by a complicated perforating machine supposed to be impossible of imitation by hand, while the writing expressive of the amount in the body of the draft was in a strong, bold hand. The perforations show indistinctly in the cut except where they are on the shade of each end of the lettering of the name of the bank. The difficulty was not alone in imitating the work of the stamping-machine, but to get over and utilize as far as possible the perforations already there. The dollar-mark could stand; the figure *1* must be changed to a figure *2*; the second figure *2* could stand; and then must be added the ciphers for the larger amount. The first thing done was to cover the space occupied by the *1* with a most delicate and skillfully applied patch of paper so like that of the paper of the draft as to pass unnoticed. This done, the new perforations were to be made. This was done with a steel needle the exact size of the original holes, broken square across. The draft was placed upon a very hard surface, and the needle was carefully placed upon the spot of a desired puncture and then struck a light blow with a hammer, which made a clean-cut hole. The figures and periods were thus stamped out in exact duplicate of those made by the machine. When this was done, the figures indicating the amount to the right in the body of the draft were changed — the *1* to a *2*, by simply adding the characteristic top of a *2* to the *1* and a horizontal loop at its base, the straight line of the *1*, under a close observation, remaining unchanged in the present *2*. The small ciphers for the cents were then removed by applying acid, and the required ciphers were put in their place. The last three letters of the word "twelve" and a line drawn in to fill the unoccupied space between that and the word "dollars" were also carefully removed with acid, and the changed surface of the paper was restored by skillfully painting it over with a brush.

The letters *nty* were added to the *Twe* that remained of "Twelve" and the words "two thousand" were written in by a skillful use of a brush and pen, and the job was done.

Notwithstanding the consummate skill of the forger, it will be observed, by comparing the added writing with what remains of the original writing, that the forger's habit was injected into the place of that of Dean. Note the *n*'s in "Twenty" and "thousand." They are perfectly formed *u*'s with straight down-lines, while the *n* in Dean has two curved blind loops—in fact, are double *ee*'s. Also, Becker wrote on his own slant, which was much more upright than Dean's, and the entire character of his writing is more set and formal, betraying the delicate touch and finish of the artist rather than the informal dash of the busy cashier.

CHAPTER XVII.

THE TRIAL OF ROLAND B. MOLINEUX IN NEW YORK FOR THE MURDER OF MRS. KATHARINE J. ADAMS, BY MEANS OF POISON SENT THROUGH THE UNITED STATES MAIL.

No CRIMINAL trial in this country has extended over a longer period of time, or has been more fiercely contested, than that of Roland B. Molineux, just closed in New York. The trial commenced with the impaneling of the jury on November 14, 1899, and continued until February 11th, 1900, when a verdict of guilty was rendered, which now means electrocution, or death in the electric chair.

All that wealth and high social and political influence could possibly do in behalf of the accused was done.

In the way of a history of the case we can do no better than to present it in the words of Assistant District-Attorney Osborne in his very able opening address to the jury. He said:—

"On December 28, 1898, this community was shocked by the discovery that a woman had been poisoned. She was a woman who had lived on the west side of New York with her daughter, a Mrs. Rogers, with a grown son, and there was an occupant in the house — Harry S. Cornish — a connection, by marriage, of the family. They had formerly lived together in Hartford, Connecticut.

"On December 24th of last year, just the day before Christmas, Harry S. Cornish, at the Knickerbocker Athletic Club, received a package through the mail. This package was taken by him to his desk, and in the presence of other persons he opened it.

"It was a Christmas present, no doubt, he thought. There was a Tiffany box and a blank envelope. Inclosed in the box was a silver article, a bottle-holder, and in it was what purported to be a bromo-

seltzer bottle. There were some pieces of paper in the box, and the box itself was wrapped up in manilla paper. On it was written the address, 'Mr. Harry Cornish, Knickerbocker Athletic Club, Madison Ave. and Fourty-fifth St., New York City.'

"Cornish carried this box and its contents home on the evening of December 27th. These dumb instruments one by one will make up this story. It was at the request of Mrs. Adams's only daughter, Mrs. Rogers, that Cornish gave to Mrs. Adams, at the time when she was preparing the breakfast,—this good old woman who was acting as the cook next morning,—the fatal dose, and after partaking of it she complained of a bitter taste, and Cornish tasted it himself. Mrs. Adams was immediately taken alarmingly ill.

"Then the doctors were hurriedly called, and within half an hour afterward Mrs. Adams was dead. Cornish went to the Knickerbocker Athletic Club. His life at one time was almost despaired of. Here was a man—Cornish—who preserved the bottle-holder, the envelope, the paper, the writing,—he took good care of it,—and in broad daylight he had administered the fatal dose.

"I wish to say here that if there ever was a man in this wide world who has been thoroughly investigated by myself and by Captain McClusky, the chief of detectives, it is this Harry S. Cornish, and I will say that we satisfied ourselves that Cornish, who gave the fatal dose, did not do so with any guilty intent.

"Now, let us see what Captain McClusky had in his possession at the time he started out to investigate the mystery surrounding the murder of Mrs. Katharine J. Adams. He knew that a woman had been poisoned; that Cornish gave her that poison; and he had before him a bottle-holder, an envelope and box, and the written address upon the wrapper of the poison package; from those articles he must find the poisoner.

"How did he proceed? Captain McClusky investigated each object step by step. And I say to you, gentlemen, that if you will follow me in the evidence which Captain McClusky gave to me, you will each one of you become a judicial Frankenstein, and, little by little, you will be able to construct the man who murdered this woman.

"In this evidence you will see the body, the soul, the features of this poisoner, and if you do not, then you will acquit this defendant. This poisoner struck from a distance. He said to himself, 'It is impossible for anybody to trace this poison to me. I have so disguised the handwriting that nobody can trace that to me. The silver bottle-holder and the poison were obtained in such a way as not to be traced to me.'

"Cyanide of mercury is a chemical rarity. There are only three cases of such poison on record. You may be sure at the outset that you cannot trace that cyanide of mercury to him, nor that silver bottle-holder, because they are monuments toward a pathway on which one can read the way of the poisoner.

"But this poisoner no doubt felt that he had discovered the secret to poison without detection. Captain McClusky had no difficulty in tracing the bottle-holder to the store of Hartegen & Company, Newark, New Jersey; but you will not be able to trace the body of the poisoner to that store. You must be able to trace the mind of the poisoner to the store where the bottle-holder was bought. It was traced to Newark. In order to trace the cyanide of mercury you must find out who uses this poison.

"Now, in order to find the man who sent this bottle-holder and the cyanide of mercury, you must find the man who had a business in Newark, and who knew about cyanide of mercury, and who handled it in his business. That is the kind of a man Captain McClusky had to look for. Consequently, you must look for a chemist who is engaged in the manufacture of colors.

"The man who wrote the address upon the poison package did not try to imitate anybody else's characteristics, but he did try to leave out of his writing all his own characteristics. Did he do so? That is the question for us to decide.

"The District-Attorney is going to make his garment out of the stitches which he dropped. In writing the address the poisoner dropped the first stitch and left enough of his characteristics to show us who he is.

"We must now look for a man who had a motive to dispose of Cornish. We must look for a man who lived partly in Newark and partly in New York. At once everybody began to investigate as to who it was who hated Cornish—who had a long-standing hatred for him. If you gentlemen of the jury will, after hearing all of this evidence, say we will not convict, then what will you say to the criminals at large?

"You would then turn society over to the criminals. But fortunately this is not the case, because this poisoner dropped more stitches,—yes, a spool of thread,—and this case, which at one time was a mystery, is actually the simplest case I have prepared in my life; and if you don't say so, I shall be very much disappointed.

"Now, Captain McClusky had a talk with the physician who attended Cornish, and who had treated another man who had suffered from cyanide of mercury poisoning, and this man was Henry C. Barnet.

"Here is another name in this case. Who is Barnet? How is it that his name is introduced into this case? Barnet lived at the Knickerbocker Athletic Club. Barnet received poison mixed with Kutnow powder, from which he had died only a few weeks prior to the death of Mrs. Adams. Barnet received this poison in the mail. Now, here we have the use of the mail, cyanide of mercury, and the Knickerbocker Athletic Club.

"There is not a man on the earth so stupid who would not know that the same man who perpetrated one crime committed the other.

"If this defendant does not fit the description I give of this poisoner, then Mr. Weeks [the attorney for the prisoner] ought to be pleased. I tell you, produce the whole garment and you will find the guilty man. On December 20, 1898, there was a letter sent to the Kutnow people asking that a sample of their powder be sent to H. Cornish at No. 1620 Broadway. Now we see the light of day.

"This spool of thread begins to unwind. He wrote to the Marsden Remedy Company, in this city, and in asking for treatment gave the company a complete description of himself. He inclosed five dollars, and asked them to send to him the remedy, and they sent to him a blank form which he had to fill out; and here we have the man who committed these double crimes fully describing himself.

"There is no doubt that the man who killed Barnet also sent the poison to Cornish. Everybody must see that. Now, what have we on this paper which this poisoner filled out?"

"I object!" shouted Mr. Weeks. "It is unfair to this client for the District-Attorney to make statements of this character in the presence of the jury."

(Recorder Goff replied that the jury must not be prejudiced against the defendant by any statement of the District-Attorney; it is not for them to infer that the person who poisoned Barnet poisoned Mrs. Adams.)

Mr. Osborne continued:—"Now, I must find this man—the poisoner. Here the diagnosis blank shows that he gave his age as thirty-one. We cannot look for anybody who is over thirty-one or who is under thirty-one. If this prisoner at the bar does not fit in that respect, we do not want him. I must show you a man of that age.

"Then we find that the man says he was contemplating matrimony. Now, we must find such a man. All married men are excluded. Then there is a query, 'Was there any consumption in the family?' which is answered 'Yes.' We must find a man in whose family there was consumption.

"Then we must find a man who measures thirty-seven inches around

the chest and thirty-two inches around the waist. Smaller men or bigger men are out of the question. Then there is a query as to complexion —answer, 'Yellow.' Look for such a man. Then we must find a man who mails his letters at the General Postoffice at 5 P.M. on week-days and earlier on Saturdays."

(Mr. Osborne announced that he would now go into the matter of handwriting. He called one of his assistants, who started to put up an easel stand, upon which a blackboard was to be placed. Mr. Weeks objected to Mr. Osborne's illustrating to the jury upon a blackboard matters in connection with handwriting, and Recorder Goff sustained him.)

"I wish to say [continued Mr. Osborne, shouting] that any expert in this country—every expert in America—including the expert who appears here for the defense, will testify that the 'H. Cornish' and the 'H. C. Barnet' letters and the address on the poison package were written by the same man.

"The experts will tell you the peculiarities of the handwriting—they will very plainly show you that there are enough characteristics left to prove that all three (the address upon the poison package, the Barnet and Cornish letters) were written by the same man; and if I do not show all of this to be a fact, then this defendant will walk out of court a free man.

"When you and I fail to write like a copybook, then you and I show our characteristics. Now, take the letter *a*, for instance—*a*, in the word 'trial.' [See cut No. 7, on page 228. Mr. Osborne wrote a letter *a* with his fingers in the air.] The prisoner wrote 'trial' thus—'tri-al.' There was a break between the *i* and the *a*. He does not make the upward stroke to connect the *i* and the *a*, but simply stops at the letter *i*, and then begins a new *a*, as though there were two words 'tri'-'al.' In 'confidential' [See cut No. 8, on page 230.] we find there is a break between the *i* and the *d*. In 'which' there is a break between the *i* and the *c*. Thus you see there is always a break after an *i* when it is before an *a*, *c*, *d*, and *g*, as in 'oblige.'

"Look,—look, I say, at all the handwriting since Adam or the Phœnicians, or whoever invented handwriting, and show me a man who makes these breaks. It is the most astonishing thing. Now, the man who wrote these letters did not know he had these characteristics, and if I find the man who wrote the Barnet letter I have the man who intended to kill Cornish.

"Then we find that he has three ways of writing the word 'oblige.' [See cuts No. 3, page 224; No. 4, page 225; and No. 10, page 232.] And if I don't find the man who has three ways of writing the word 'oblige,' then I do not find the man who is guilty of this murder.

When he writes the word 'oblige' slowly, he writes it 'obli-ge,' with a break between the *i* and the *g*. When he is in a hurry he writes 'oblige' 'obli-g'' with a little tick at the end, indicating the *e*, but does not write the *e*, and then he writes 'oblige' at times 'obli—' and makes the *g* like a *q* with a little tick at the end.

"This letter was written on blue paper with three crescents, manufactured by Whiting & Company, and sold in four department stores, and — now mark me, gentlemen — in two stores in Newark, and one of these stores ought to be a store which the poisoner had in his mind. One was that of Plum & Company, and the other of Hayne & Company, in Newark. In December, 1898, a man had taken a letter-box at No. 1620 Broadway under the name of Harry Cornish, — but he was not Harry Cornish. And there was a letter written to Detroit, and one to Frederick Stearns & Company, in Detroit, and another letter written to the Von Mohl Company, in Cincinnati.

"The Von Mohl Company were manufacturers of patent medicines, and the letter sent to them asked for a sample of their medicines. Another letter was an inquiry about A. A. Harpster, saying that Harpster had applied to Harry Cornish for a position as collector, and that all information sent to Harry Cornish, No. 1620 Broadway, concerning the said Harpster, would be considered as confidential. Why did the writer inquire about Harpster — amiable, calm, quiet Harpster — more stout than anything else?

"Now, we must look for a man who had reason to dislike Harpster. Harpster some time before had been an employee in the Knickerbocker Athletic Club at the time when Cornish and Barnet were there together. Now, you must find a man — the poisoner — who knew all three of these men at one time. Take these three men. They all moved in different social circles, and the only thing that bound them together was their common interest in the Knickerbocker Athletic Club.

"We have reached the point now in our investigation where the silver bottle-holder was discovered at Hartegen & Company, silversmiths, of Newark. The letter-box was hired on December 21st, the same day the bottle-holder was purchased."

(Mr. Osborne then explained at length the various methods employed by dealers in patent medicines as to preserving the letters they received from their clients.)

"The man [he said] who once seeks advertisements for a remedy is forever marked by firms dealing in such remedies. In other words, he has acquired what is known as the patent-medicine habit, one that is bad to contract and one that cannot be lost. We will show to you that the man who wrote this and other letters was not H. C. Barnet.

"All over the country we have found letters asking for certain kinds of patent medicines. The letters signed 'H. Cornish' were dated from the letter-box place, at No. 1620 Broadway. Other letters were found signed 'H. C. Barnet,' asking for the same kind of medicine, and the writer of these letters asked that the samples be sent to Louis Heckmann's letter-box place, in Forty-second Street.

"On May 28th a man went to this place and rented a letter-box in the name of H. C. Barnet. We will show that this man was not H. C. Barnet. By singular coincidence another letter signed Barnet was also sent to the Von Mohl Company in Cincinnati, to whom a letter signed 'H. Cornish' had also been sent. All of these letters asked for medicines of one kind.

"The general scheme of the two murders was the same: letter-boxes were taken in the names of the two men; the same poison was sent to them both; the mails were used in sending the poison. They were generated by the same brain, the same ideas — the adopting of the names, the letter-boxes, the remedies, cyanide of mercury, the United States mails. Here was the scheme.

"Take the name of your enemy. Take the letter-box in the same name, and dead men tell no tales. Barnet could not come back from his grave and say, 'I never took another man's name; I never wrote for these remedies.'

"The poisoner used that scheme in both cases, but here again we find that this poisoner did not have universal knowledge, for he dropped another strand of this spool of thread.

"Who in every conceivable way — residence, business, environment, hatred, handwriting — complies with the absolute description of the poisoner? There is but one human being on the face of this whole earth, and that man is the defendant at the bar."

H. C. Barnet, whose name was brought into prominence during the trial, was a fellow member of the Knickerbocker Athletic Club with Molineux, Cornish, and Harpster. It appeared from the evidence adduced at the trial that Barnet was a favored rival lover of Molineux for the woman whom Molineux married nineteen days after Barnet's death.

At the time of Barnet's death, diphtheria was attributed as the cause; but after the death of Mrs. Adams from poison evidently intended for Cornish, the circumstances of

No. 1.

Mr Harry Cornish
Knickerbocker Athletic Club
Madison Ave and Fourty Fifth St
New York City

THE ADDRESS ON THE WRAPPER OF THE POISON PACKAGE.

No. 2.

Mr Harry Cornish
Knickerbocker Athletic Club
Madison Ave and Fourty Fifth St
New York City

A chemical analysis showed the same ink to have been used on the wrapper address as on the Barnet and Cornish letters. That the same old pen was used is manifest in the double line crossing the *F* in "Fourty" and similar lines on Nos. 4 and 7.

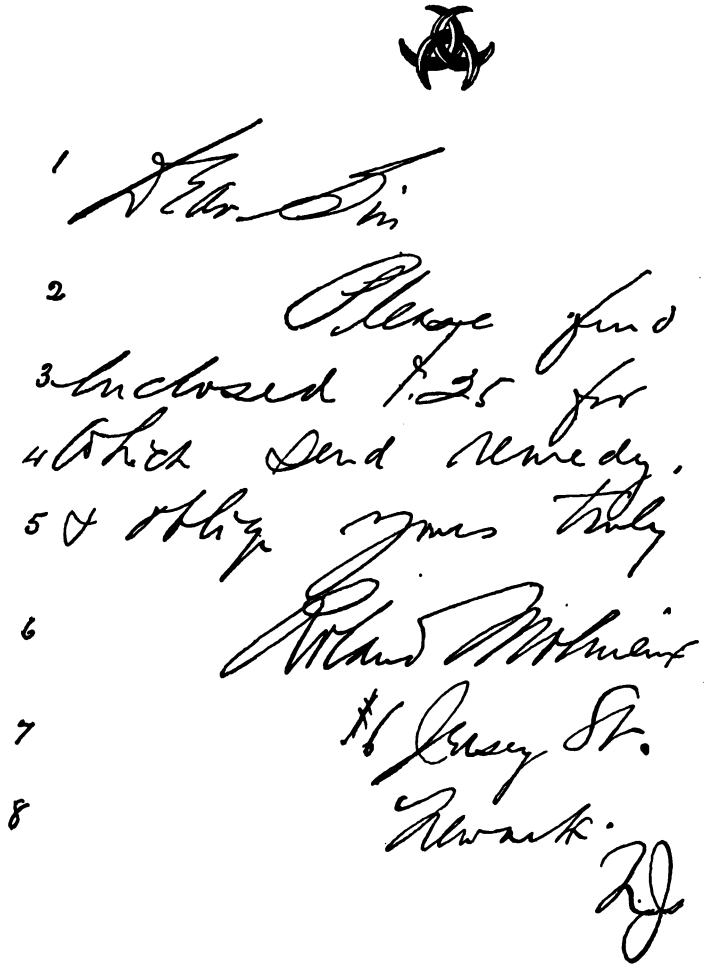
WRITING BY MOLINEUX FROM DICTATION — USED AS A STANDARD FOR COMPARISON OF WRITING IN THE CASE.

12 Mr Ballantine evidently
13 thought it was O.K.
14 for Cornish is in & I
15 am out
16 Show it to some
17 of your friends. I
18 would like much to
19 hear their opinion on it
20 & it may interest you
21 at this time when
22 the whist club is "getting
23 theirs"
24 Please when through returning &
25 Oblige
26 Yours very cordially
27 Roland Molineux

No. 3.

MOLINEUX'S NATURAL HANDWRITING — USED AS A STANDARD FOR COMPARISON WITH ADDRESS ON THE POISON PACKAGE AND THE BARNET AND CORNISH WRITING.

Barnet's death were recalled as being suspiciously akin to the attempt upon the life of Cornish. Barnet's illness was preceded by the taking of Kutnow powder, a portion of which still remained. This powder was subjected to

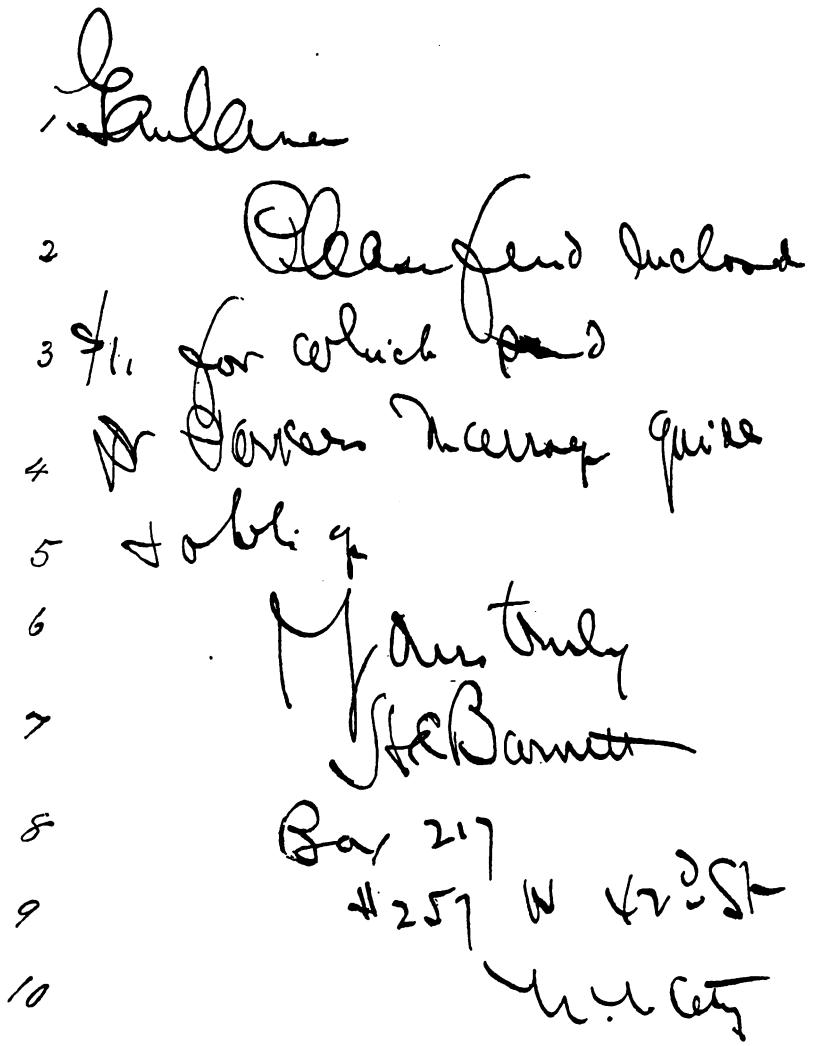


No. 4.

MOLINEUX'S NATURAL HANDWRITING, ON HIS THREE-CRESCENT EGG-SHELL BLUE PAPER, LIKE THAT ON WHICH THE CORNISH WRITINGS NOS. 5 AND 8 ARE WRITTEN.

This letter was used at the trial as a standard for comparison with address on poison wrapper and the Barnet and Cornish writing.

a chemical analysis, and it was found to contain cyanide of mercury, the same deadly poison that was found mixed with the bromo-seltzer sent to Cornish. The package containing the powder was also received by Barnet through the



No. 5.

A SO-CALLED BARNET LETTER.

Compare with Molineux, Nos. 3 and 4.

(Address given was a private letter-box rented by Molineux.)

mail. A post-mortem examination and chemical analysis revealed the presence of the poison in the body of Barnet.

Barnet was a dangerous rival in love, Cornish was a hated enemy in the club, and Harpster was Cornish's friend. Here was at once shown the motive on the part of

1 Gentlemen

2 Please find enclosed

3 $5.- for which send me

4 one month treatment for

5 "impotence"

6 And oblige yours truly

7 N. C. Barnet

8 Box # 217

9 # 257 West 42d St

10 N.Y. City

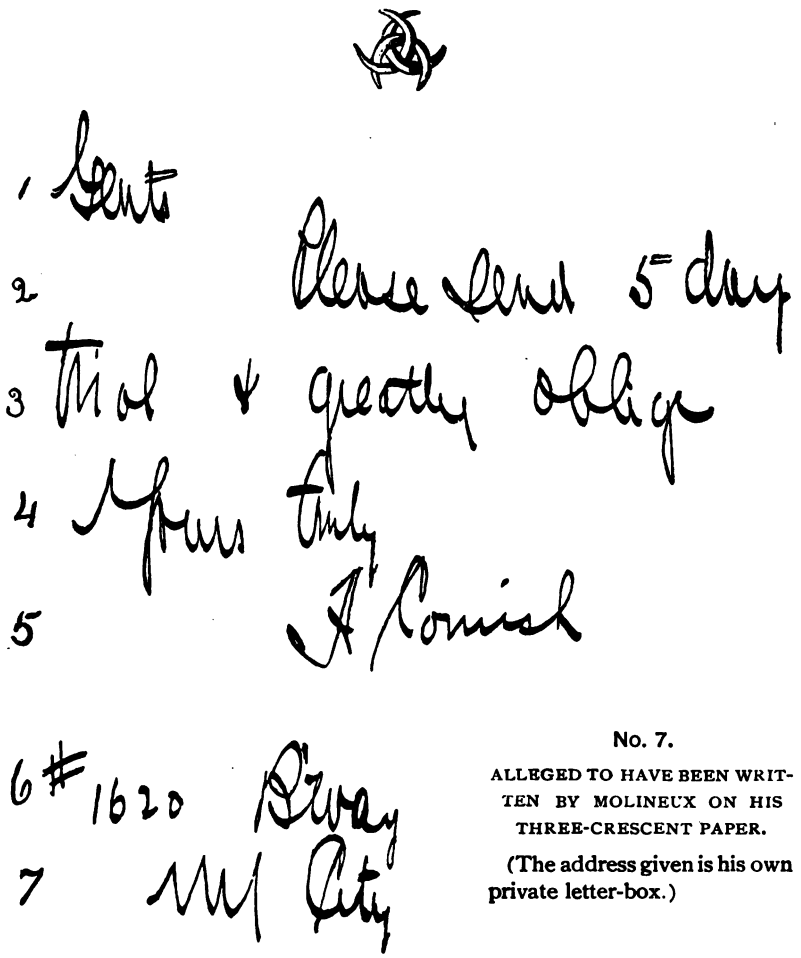
No. 6.

ALLEGED TO HAVE BEEN WRITTEN BY MOLINEUX.

Compare with Molineux, Nos. 3 and 4.

(Address given, his own private letter-box.)

Molineux for striking all three. The correspondence carried on in the names of Barnet and Cornish through the secrecy of private letter-boxes was of such a nature that the writer would naturally wish to be unknown. The tracing of this correspondence to the private letter-boxes and the identity of Molineux as the party who rented them and received the mail addressed thereto, not only of themselves were strong links in the testimony, but the disguised writing of Molineux upon the so-called Barnet and Cornish letters



No. 7.

ALLEGED TO HAVE BEEN WRITTEN BY MOLINEUX ON HIS THREE-CRESCENT PAPER.

(The address given is his own private letter-box.)

was a powerful aid in fastening upon Molineux the authorship of the writing on the wrapper of the poison package.

Eleven of the best-known handwriting experts of the country,—William J. Kinsley and B. F. Kelley, of New York; Henry L. Tollman, of Chicago; John F. Tyrrell, of Milwaukee, Wis.; A. S. Osborn, of Rochester, N. Y.; T. W. Cantwell, of Albany, N. Y.; Dr. Persifer Frazer, of Philadelphia; Col. Edwin B. Hay, of Washington, D. C.; W. E. Hagan, of Troy, N. Y.; and the writer,—a large number of bank cashiers, and several persons (including the secretary of the athletic club) who were familiar with Molineux's writing, testified most positively that he wrote, in a disguised hand, the address upon the wrapper, and also the Barnet and Cornish letters. Against this overwhelming testimony, there was employed on behalf of the defense before the Grand Jury, and in court during the trial, an alleged expert, who first gained notoriety by falsely announcing himself as the "official expert of New York," when no such office ever existed, and who was utterly without previous special experience in the art or science of writing or other calling that tends to confer expert skill respecting handwriting. As a curious coincidence, he was employed on the defense of Whittaker, the West Point cadet, before the United States court-martial which rendered a unanimous verdict of guilty. He was also employed by the newspaper *Truth* to prove the genuineness of the notorious Morey-Garfield forged letter, and testified to its genuineness before the court of inquiry. He was engaged on the side of the defense in the Collum-Blaisdell case (illustrated on page 192). Before the Surrogate of New York he testified that two wills—those of Mrs. Callahan and Cundigundie Backer—were forgeries, both of which were afterwards proved genuine and admitted to probate. Recently, in the United States District Court, in New York, he testified that certain pension papers, alleged to have been forged by one Coon, were not written

1 Gentlemen

2 Mr. A A Harpster

3 has applied to me for a

4 position as collector

5 He did not refer

6 to you but mentioned having

7 been in your employ

8 A line from you

9 would be considered confidential

10 and greatly appreciated

11 Yours very truly

12 H. Cornish

13 #162 Broadway

14 N.Y. City

No. 8.

The above is a facsimile of the so-called "Harpster Letter," alleged to have been written by Molineux for the purpose of procuring information to use against Harpster with his employers, in order to oust him from his responsible situation as collector. It will be observed that the letter is written on the three-crescent paper, like Molineux's (No. 3), and the address given is a private letter-box rented by Molineux.

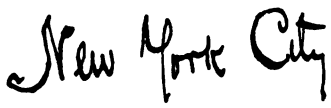
1 Gentlemen
2 Mr A. A. Harpster has applied to me
3 for a position as collector.
4 He did not refer to you but
5 mentioned having been in your employ
6 A line from you would be confidential
7 and greatly appreciate
8 Yours very truly
9 N. Cornish
10 #1620 Broadway
11 N.Y. City

No. 9.

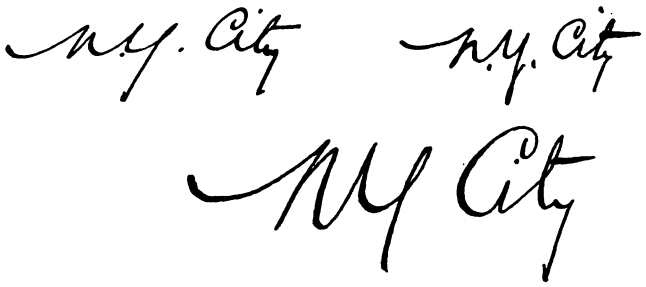
A COPY OF THE CORNISH LETTER, WRITTEN BY MOLINEUX FROM TYPEWRITTEN COPY—USED AS A STANDARD IN THE CASE.

When requested to write it in an upright hand he declined, saying he never wrote that way, and could not.

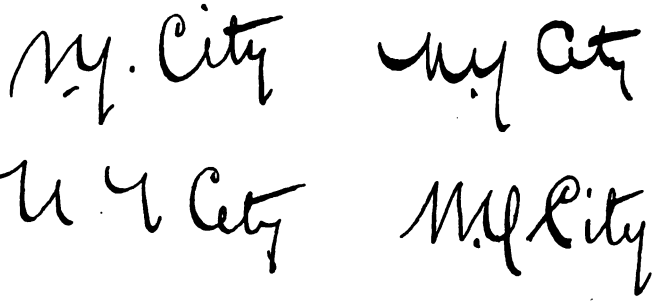
ADDRESS.



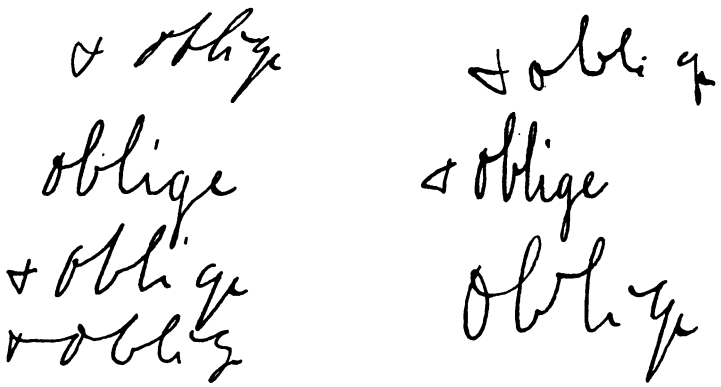
MOLINEUX.



BARNET. CORNISH.



MOLINEUX. BARNET & CORNISH.



No. 10.

In this and the following cut are placed in convenient contrast words from the admitted writing of Molineux, from the address, and from the Cornish and Barnet writings. To the word "oblige" particular attention is called — its two and coincident methods of making the *ge*, the coincident form and use of the character *&*, and also to the break between the *i* and *g* in all cases except in the second word in the Molineux column, which is from the dictated writing of Molineux after attention had been called to this peculiarity in his writing.

MOLINEUX.

which which which

BARNET. CORNISH.

which which

MOLINEUX.

for for for for for for for

BARNET. CORNISH.

for for

MOLINEUX.

Yours very truly Yours very truly

BARNET. CORNISH.

Yours truly Yours very truly

ADDRESS.

MOLINEUX. BARNET. CORNISH.

$.25 $1.60 $1. $5.-

MOLINEUX.

No. 11.

Compare especially in the above cut the four *y*'s taken from the address and those from Molineux's writing; also the $ sign, which is highly personal, in that it is made in each instance with an *S* on a very long single line, high above the base-line.

by him; and the jury disagreed, standing eleven to one for conviction. When arraigned shortly after for a second trial, Coon confessed to having written the papers and pleaded guilty. The circumstances of each of these cases were such as to indicate that the alleged expert was grossly incompetent or dishonest. In the famous Hoffman-Figel murder case in San Francisco this same witness made an affidavit to the genuineness of Hoffman's alleged signature to a receipt for $9,500; and when the affidavit was offered next morning in court it was learned that the affiant was on his way to New York, having left immediately after signing the affidavit. The circumstances were such that the presiding judge (Campbell) refused its admission, under the most disparaging criticism of its maker. The amount for which the receipt was alleged to have been given was subsequently refunded, as a part of a proved defalcation.

It has been from the appearance of such witnesses in courts that expert testimony has been unduly disparaged by the bench, the bar, and the press. It may be asked why such persons can remain in the field as experts. It must be remembered that every case must have two sides; and the more false and desperate is the one side, the more earnest is the seeking for witnesses that will serve it, and correspondingly liberal is the fee that may be commanded. Of course, the truthful side of a case is preferred, and most frequently furnishes employment; but when not called on that side, the adverse side presents a golden opportunity.

We quote the following from District Attorney Osborne's closing address to the jury: "Remember this,—and don't forget it,—that the great Machiavelli of handwriting experts in America [Carvalho] was engaged by the defendant."

The Molineux trial continued three months lacking three days, at an estimated cost of $200,000, the longest and most expensive criminal trial on record in this country. A large factor of this extraordinary time and expense was due to the antagonizing effect of this adverse alleged expert, to

overcome which the District-Attorney felt impelled to call experts and other witnesses as to handwriting to an unprecedented number and from long distances.

That our readers may have the opportunity of judging of the handwriting in the case, we present a few out of over fifty exhibits, including the address upon the wrapper of the poison package, specimens of the so-called Barnet and Cornish writing, together with the habitual writing of Molineux and that which he wrote from dictation. In making the comparison, it will be observed that the writing from dictation differs about as widely from Molineux's natural hand, as presented in cuts Nos. 3 and 4, as does that of the address. Why was this so, if he was innocent of the alleged charge of having written the address upon the poison package and the Barnet and Cornish letters?

To many of the coincident characteristics of the disputed and admitted writing we have called attention in connection with the cuts. To any one accustomed to observe handwriting it will be apparent that the address upon the package and the Barnet and Cornish writing are in a disguised hand, and that, in the main, the same disguise is employed in each—viz: a coarse pen, held over to the side, and the words written in an upright position. Indeed, the change of slant and a few of the types of letters are chiefly the disguise.

Upon the wrapper the types of the capital letters are too absurd to be a part of any habitual writing, and in that respect are utterly inconsistent with the more orderly and well-formed small letters; while in the latter part of the address the writer seems to have lapsed into nearly his natural hand, except as to slope and greater formality of the writing.

In cuts Nos. 1 and 2 we have placed in juxtaposition the written address upon the poison package and Molineux's copy of it written from dictation. Attention is called to the coincident tendency of the words to change as

to their base-line, the words and lines rising from left to right, and the uniformity of the crosses of the *t*'s, except in the word "athletic," where the two *t*'s are crossed by one sweep of the pen. A parallel of this is in cut No. 3, in the words "interest" and "return," while other crosses are short. Further comparison we leave to the reader.

Cut No. 5 should be compared with No. 4, as much of their composition is coincident. Special attention is called to the words "find," "enclosed" (which in each instance begins with a mammoth *e*—see, also, "evidently," cut No. 3, line 1), the dollar-mark, "which," "send," "oblige," and "truly." The word "Gentlemen" in cut No. 5 should be compared with same word in cut No. 9. Note the three long *e*'s and the diminishing *m* and *n*. Cuts Nos. 8 and 9 should be compared with each other. One of the peculiar habits of Molineux's writing was to make an initial *i* very high, beginning abruptly at the top. Examples are in cut No. 3, lines 14, 20, and 22. Compare with same in cut No. 6, line 5; cut No. 8, line 7; cut No. 9, line 5.

In cuts Nos. 10 and 11 we have grouped several of the more prominent features of the writing in the case, for the greater convenience of comparison and the presentation of several peculiarities not present in the limited number of the exhibits it was deemed practical to here present, out of some fifty or more used by the experts in the case.

CHAPTER XVIII.

REPORT OF THE WRITER ON THE CELEBRATED DREYFUS CASE, PARIS, FRANCE.

FEW cases, if any, that have involved the genuineness of handwriting, have elicited wider attention and a greater interest than the great French trial for treason, popularly known as the Captain Dreyfus case.

"At the time of the arrest and trial of Dreyfus it was given out that the incriminating evidence had come from the waste-basket of the German Embassy, and had been secured by one of the secret military agents of the Government. This individual, who was disguised as a rag-picker, made a practice of buying and carefully going over all the refuse paper that came from the office of the German Embassy, in an effort to find some clew to the source of leakage of important military secrets which were known to be in the possession of the German Ministry of War. One day, according to the story given out by the officers of the French Government, this detective rag-picker secured, among the papers that had been thrown out, the 'bordereau,' or 'list of documents.' This was a single sheet of buff-colored note-paper of ordinary size, and from its contents seemed to be a memorandum of certain documents which had presumably been conveyed to the Germans.

"It was written in French, and ran as follows:—

> Although I have had no news from you to the effect that you wish to see me, I nevertheless send you, sir, some information of interest.
>
> 1. A note on the hydraulic brake, 120; how it worked when experiments were made.
>
> 2. A note concerning the covering forces. Several modifications will be made by the new plan.
>
> 3. A note relative to alterations in the formations of artillery corps.

4. A note relating to Madagascar.

5. The draft of a manual of artillery field-practice, March 14, 1894.

This last document is exceedingly difficult to procure, and I can have it at my disposal only for a very few days.

The Minister has sent a certain number of copies to the different regiments, and the regiments are responsible for them. Every officer who has a copy has to return it after the maneuvers. So, if you wish to make such extracts from it as may interest you, I will procure a copy, subject to your promising to return it to me as soon as you have done with it. Perhaps, however, you would prefer that I should copy it out word for word and send you the copy.

I am just going to the maneuver.

Sans nouvelles m'indiquant que vous désirez me voir, je crois avoir à vous adresser Monsieur quelques renseignements intéressants

1° une note sur le frein hydraulique du 120 et la manière dont il est conduit cette pièce.

2° une note sur les troupes de couverture. (quelques modifications seront apportées au nouveau plan

3° une note sur une modification aux formations de l'artillerie :

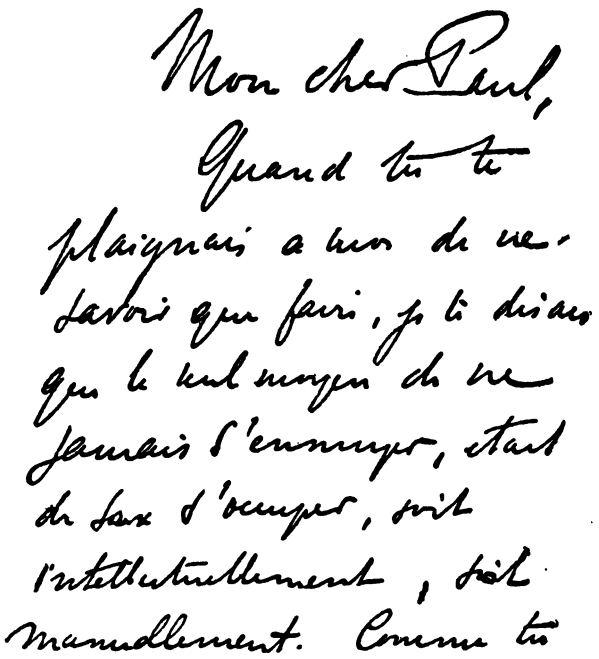
4° une note relative à Madagascar.

FACSIMILE OF A PORTION OF THE BORDEREAU WHICH DREYFUS DENIES WRITING.

"That was all. There was no address, no date, no signature. The documents referred to in the memorandum were scarcely of vital importance; but, naturally, the French Government was interested to find out whether its secret orders were being systematically conveyed to the Germans.

"Armed with the clew provided by the 'bordereau,' the secret agents of the Ministry set about the task of finding its author. The writing of all the persons from whom it could possibly have emanated was examined and compared with it. It was finally announced by Major Du Paty de Clam that the writing in the 'bordereau' coincided with that of Captain Alfred Dreyfus, stagiary in the second bureau at the general staff corps.

"Though Dreyfus was under surveillance from this time, he was not at once placed under formal arrest. The 'bordereau,' together with authenticated specimens of the handwriting of the accused man, was first submitted to two French handwriting experts for their opinion.


Mon cher Paul,
Quand tu te
plaignais a moi de ne-
savoir que faire, je te disais
que le seul moyen de ne
jamais s'ennuyer, était
de sax s'occuper, soit
intellectuellement, soit
manuellement. Comme tu

FACSIMILE OF A PORTION OF A GENUINE LETTER OF DREYFUS.

"These authorities — M. Gobert and M. Bertillon — after a thorough examination of the papers submitted to them, delivered opinions exactly opposite. Gobert decided that the two could not have been written by the one man, while Bertillon announced himself convinced that both were the work of the same hand; and later, three other graphologists were consulted, two of whom agreed with Bertillon, while the other sided with M. Gobert. The preponderance of opinion was against the prisoner. In spite of his protestations of innocence, the authorship of the 'bordereau' was fastened upon him, and he was sentenced to perpetual exile, and the infamy of being degraded as a traitor.

"In order to arrive at some estimate of the value of these different opinions, it may be well to consider for a moment the men who uttered them. M. Gobert is the expert examiner of the Bank of France, and the most distinguished private graphologist in France, a man with presumably no prejudice in favor of either party in the case. M. Bertillon is widely known as a commissary of police and Chef de la Service de l'Identite Judiciare — an official of the French Government, and probably acquainted with its overwhelming desire to fasten the crime upon the accused man. The other experts were men of less note, and may have been influenced by the earlier decisions.

"After the conviction and transportation of Dreyfus, his family and friends began an active campaign to prove his innocence.

"As one step in this they prepared exact reproductions of the 'bordereau,' and of two authentic specimens of the condemned man's handwriting, one written before and one after the discovery of that document. These were submitted to the most famous graphologists of the world, eleven in number. Mr. Ames was among those whose opinions were solicited, and thus was brought officially into the case. It is an interesting and significant fact that these eleven experts, in half a dozen different countries, working independently of each other, and along original lines, were unanimously of the opinion that the two papers were not and could not have been written by the same man. Thus the congress of experts stood three for and thirteen against the decision of the court-martial, while the civilized world, outside of France, united in favor of Dreyfus."

The following is a copy of the writer's report, submitted in April, 1897, and which was remarkably verified at the subsequent trial of Captain Dreyfus:—

OFFICE OF DANIEL T. AMES.
HAND-WRITING EXPERT
NEW YORK CITY
(NOW 24 POST ST., SAN FRANCISCO, CALIFORNIA)

"NEW YORK CITY,

"*In re Dreyfus.* September 26, 1898.

"This is to certify that I have examined two photo-lithographed copies of letters selected as standard writing of Captain Dreyfus; one dated 1895, and the other 1890. That of 1895 is with a stub pen of medium fineness and near to the standard slant of fifty-two degrees; while that of 1890 is of a more upright slant and with a stub pen. Both letters are in a smooth, flowing style.

"I have also made a careful examination and comparison of these letters with another writing without date or signature, alleged to have been written by Captain Dreyfus. The latter is so imperfect in its reproduction as to embarrass the comparison, and render the conclusion less reliable than it otherwise would be; but from such comparison as I have been enabled to make, I am of the opinion that the said unknown writing is the result of an effort to imitate or counterfeit the writing of Dreyfus rather than the endeavor of the author of the standard writing to disguise his hand. It is my opinion that the anonymous writing, or so-called 'bordereau,' was not written by Captain Dreyfus.

"I am lead to this conclusion from the apparently lower order of artistic skill manifest in the anonymous writing. It differs in its angularity, in the shorter extensions of the loops and other extended letters, and it also differs in the form and relationship of the letters, in the transposed pen-pressure, in the alignment and slope of the writing, and in the different manner of crossing the *t*'s. These are the differences which would designate imitated rather than disguised writing. It must be understood that this conclusion is reached from the comparison of reproduced writing, which must of necessity be more or less imperfect, and this opinion might be more or less modified according to the correspondence of the lithographic copies with the originals.

"Respectfully submitted, DANIEL T. AMES."

CHAPTER XIX.

THE JUNIUS LETTERS—ABSTRACT FROM THE CELEBRATED WORK OF SIR EDWARD TWISLETON, EMBODYING THE REPORT OF THE FAMOUS ENGLISH EXPERT, CHABOT, ON THE AUTHORSHIP OF THE JUNIUS LETTERS.

BEYOND doubt the handwriting in the Junius Letters has been the subject of a more prolonged and persistent inquiry than has been accorded any other matter wherein the question of handwriting has been involved. For more than a century "Who wrote the Junius Letters?" was a question of constant and earnest repetition throughout the United Kingdom. The famous letters were in a disguised handwriting, and made their first appearance in January, 1769. They were political in their character, and laid bare to the bone the inner workings of British politics and the corruption of the British court of that period. Scarcely a man in public life escaped the lash and biting sarcasm of these powerful missives, which betrayed a most intimate knowledge of all that was going on in the most guarded political and social circles, as well as the private lives of the ministers and political leaders. Their author therefore had the strongest incentive to conceal his identity at any cost. Discovery and exposure would mean nothing less than ruin, perhaps an ignominious death. This was a quite sufficient reason for his taking the secret with him to the grave.

Hardly an eminent Englishman of that period escaped the suspicion of having written the letters. But when the evidence was gathered and sifted, only the sieve remained. Burke, Wilkes, Horne Tooke, Lord Lyttleton, Lord George

Sackville, Lord Shelburn, Colonel Barré, Sir Philip Francis, and Lady Temple, were among the many to whom the authorship has been attributed.

We have before us a large quarto work, by the Murrays of London, consisting of six hundred and sixty-five pages, which is described on the title page as "The Handwriting of Junius as Professionally Investigated by Mr. Charles Chabot, Expert: With Preface and Collateral Evidence by the Hon. Edward Twisleton." The result of this investigation is that the Junius Letters are attributed to Sir Philip Francis with a degree of positiveness that would warrant a jury's verdict in an ordinary case, and the mystery of a century is cleared away. Probably there is not recorded a greater triumph for expert testimony with respect of evidence from handwriting.

The work of Messrs. Chabot and Twisleton, says the editor of the *Quarterly Review*, possesses a value quite independent of the immediate question which it discusses. Its direct object is to prove by a minute and exhaustive examination of the Junian manuscripts and of the letters of Sir Philip Francis that both of them were written by the same person; but indirectly it supplies most valuable information and rules for guidance to those engaged in the investigation of subjects in which a comparison of handwriting is more or less involved.

In the book are presented eighty-five lithographed plates of the writing of Sir Philip Francis and eighty-three plates of the Junian writing. It is by far the most voluminous and most profusely illustrated work yet published upon expert comparison of handwriting.

In seeking to prove that two different handwritings have been made use of by the same person, it is important to observe the method pursued in the investigation. Most persons are content with a general comparison, without endeavoring to ascertain the principles which govern the handwriting, or the characteristic habits in the two hand-

writings under discussion. They thus form their judgment by the impression left upon their minds by general similarity, without that careful examination of the peculiar and distinctive formations of individual letters which characterize the writing. "The principles which underlie all proof by comparison of handwritings are very simple, and when distinctly enunciated, appear to be self-evident. To prove that two documents were written by the same hand, coincidences must be shown to exist in them which cannot be accidental. To prove that two documents were written by different hands, discrepancies must be pointed out in them which cannot be accounted for by accident or by disguise. These principles are easy to understand, but to exemplify them in observations is by no means always easy." It is the merit of these reports that they give a minute analysis of the handwriting by examining separately the elements or letters of which it is composed. From a great mass of matter presented we select a few illustrations for comparison, which appear in the following pages. In approaching this branch of the subject, Mr. Chabot says:—

"I find generally in the writing of the letters of Sir Philip Francis so much variety in the formation of all letters which admit of variety as to render his handwriting difficult to disguise in any ordinary manner, and consequently easy to identify. I discover also in the writing of the letters and manuscripts of Junius variations in the formation of certain letters, in some cases very multifarious, and of frequent occurrence, and that these variations closely correspond with those observed in the writing of Sir Philip Francis. They are, however, chiefly confined to the small letters in both handwritings; the habitual formation of capital letters being seldom departed from in any essential particular in either. I find also, in some instances, wherein Junius makes exaggerated formations of certain letters, exact counterparts of them are to be found in the writing of Sir Philip Francis, and in some cases as nearly as possible with the same frequency. I further find in the handwriting of Sir Philip Francis a repetition of all, or nearly all, the leading features and peculiar habits of writing, independent of the formations of letters, which so distinguish the Junian writing. These are so numerous, so varied, and in some cases so distinctive, that, when taken

collectively, it is scarcely within the limits of possibility that they can be found in the handwriting of any two persons. I am, therefore, irresistibly driven to the conclusion that the Junian manuscripts and the forty-four letters of Francis have all been written by one and the same hand."

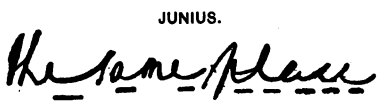
Mr. Chabot brings forward two distinct classes of evidence to identify the handwriting of Sir Philip Francis with that of Junius, one relating to the formation of letters and to peculiarities connected therewith, and the other to habits of writing which do not necessarily depend on such formations and peculiarities.

First as to the general construction of the Junian handwriting: —

"Upon an attentive examination it will be found that the slope of the Junian writing differs from that of Francis's principally in the down-strokes of the letters, and that the slope of the up-strokes, which is very horizontally inclined, is, as nearly as may be, the same in both. This will become clearly apparent upon an examination and comparison of the following facsimiles:—

FRANCIS.

JUNIUS.



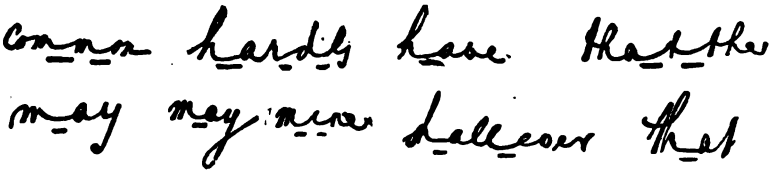
"Some writers make both the upper and lower turns of their letters angular; others give them considerable roundness; the results are two opposite styles of writing. When Francis wrote rapidly, his writing partook of both characteristics in an eminent degree. If he altered the down-strokes — by making them more upright, without making any corresponding alteration in the up-strokes of his writing, those three qualifications would necessarily be augmented and become more distinctly apparent. Be that as it may, they are the principles upon which the Junian hand is constructed.

"When Junius altered the natural tendency of his hand, which he sometimes attempted for the purpose of disguising it, by making the lower as well as the upper turns of his letters angular, the two leading

characteristics of extreme breadth to the former and narrowness to the latter still remain. It is not only the fineness and smallness of the writing, but also the angularity of so many of the lower turns of the writing of that letter, that occasion the strong contrast of its general character to that of the letters to Woodfall, Nos. 7, 9, 12, and 22, and others of the Junian writing.

"Although many of the letters of Junius contrast with each other in their general appearance, the construction of the writing of all is based upon these principles: In all, the upper turns of the letters are angular and cramped, and the lower turns wide and free; and the latter are habitually, though not always, well rounded, agreeably with the natural tendency of Francis's writing, particularly when he wrote rapidly. The extreme width of the lower turns of the letters frequently occasioned in the Junian hand as much space between the letters as between words, as shown in the subjoined facsimiles:—

FRANCIS.



"The following words, taken from Junius's first letter to Mr. Grenville, forcibly illustrates these three peculiarities:—

JUNIUS.

"In that facsimile the upper turns of the letters *h* and *m* are angular in the extreme, and the lower turn of the letter *h* is so round and wide that it occasions almost as much space between the two letters as is afforded between the word and the word following it."

The following may be mentioned as some of the specialties in the handwritings of Junius and Francis:—

"I. Sir Philip Francis was apt to write the letter *i* in the word 'time' upside down, as in the following facsimiles:—

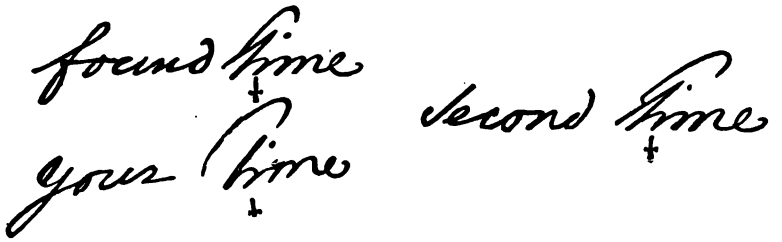
FRANCIS. JUNIUS.

"He has done so in eight of the twenty-one instances wherein that word occurs in his letters. He would, therefore, be liable to repeat that habit while writing in a feigned hand. Accordingly I find on the second page of Junius's third letter to Mr. Grenville, that word written in the same remarkable manner, as shown on preceding page.

"Moreover, the general character of the writing of that word corresponds closely with the two instances taken from Francis's writing.

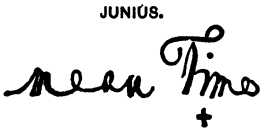
"II. But, further, Francis, having written the word 'time' in the middle of a sentence, in the peculiar manner shown, had the habit of occasionally making an addition to the small letter *t*, which had the effect of converting it (improperly) into a capital letter, thus:—

FRANCIS.



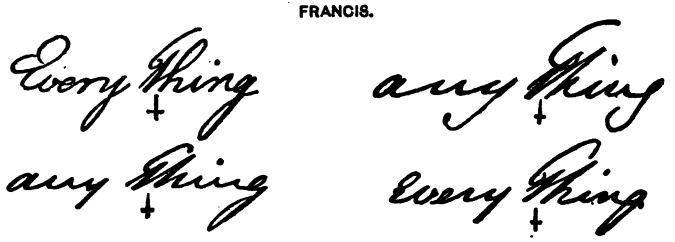
"Both of these peculiarities occur in the word 'time,' written on the first page of Junius's first letter to Mr. Grenville, thus:—

JUNIUS.



"The letter from which that word is taken is dated only a month after the date of Francis's letter from which the first of the two facsimiles of the word 'time' is taken, and it occurs in the same phrase, viz: 'in the mean time.' The form of the addition made by Junius does not exactly correspond with that by Francis, because he was disguising his hand; but the habit or intention is the same, notwithstanding the difference of form. This disguise, however, like many others adopted by Junius, was not uniformly maintained. There is another instance in which no difference of form appears. Francis occasionally made this addition to the small letter *t* when he wrote the word 'thing' in the middle of a sentence where no capital letter was needed, as in the following facsimile:—

FRANCIS.



"Junius has made a similar addition, and in like form to the letter *t*, in the same word, also written in the middle of a sentence, as here shown:—

JUNIUS.

"It will be observed in each case that if the addition be removed the word will remain written with a small letter *t*, commenced with an up-stroke in the usual manner, and that the entire word has been written by a single operation of the pen, sustained on the paper until the word has been completed.

"These two peculiarities are by no means frequent in the Junian writings; their occurrence in Francis's hand suggests the source whence they are derived. They occur in other words in his writing at irregular intervals, insufficient to be regarded as habits of writing, but rather as inadvertencies to which he was liable. Another instance of an inverted letter *i* occurs in the word 'writing,' and 'write,' in Francis's letters, thus:—

FRANCIS.

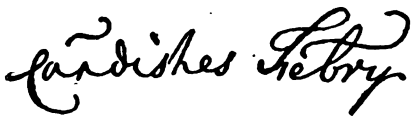
"It also occurs in similar words in Junius to Woodfall, thus:-

JUNIUS.

"In the same way that Francis formed the letter *i* similarly to a letter *r*, so he formed (and far more frequently) the letter *r* like a letter *i*. The writing of Junius is equally plentiful in these irregularities.

In Junius to Woodfall, the two letters *v* and *e* of the second syllable of the word "Cavendishes" are omitted. The omission is signified by a peculiar compound curve with hooks. This mark is the brand of Francis's hand, and, corroborated by other evidence, stamps that letter as having emanated from him. The omission of the three letters *u*, *a*, and *r* of the second syllable of the word "February" in the dating of that letter, is signified by a mark in perfect keeping with that employed by Junius and Francis, as in the following facsimiles: —

JUNIUS. FRANCIS.

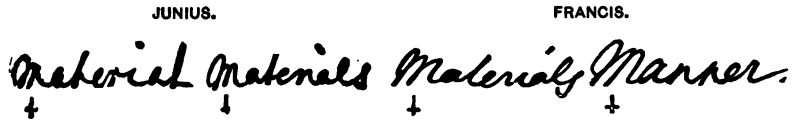


"I do not remember [Mr. Chabot says] having seen this mode of shortening a word in any other handwriting. It may have been common in the last century, but no instance has attracted my attention in a very large amount of different handwritings of that period which I have examined in the British Museum. It occurs once only in the Junian hand, but I find three other instances in the letter-book, on the backs of letters by Francis, besides that already given, sufficient to show that that mark of abbreviation was a peculiarity specially belonging to his hand.

"The preceding are instances of specialties in regard to forms, in all three of which, in combination, few if any other writers can be found to participate with Junius and Francis. I find in their hands not only coincidences of special formation of letters, but of special uses for which particular formations only of certain letters are employed; and notwithstanding those formations are of a common character, the application of them to particular uses, to the exclusion of other common formations, gives them considerable importance. We may also notice another specialty in the two handwritings relating to the letters *m* and *n*.

"The junction of two words had the effect of materially altering the character of the formation of certain letters in the two handwritings now under examination. Both Junius and Francis frequently formed the letters *m* and *n* in a somewhat distinctive manner, as in the following facsimiles:—

JUNIUS. FRANCIS.



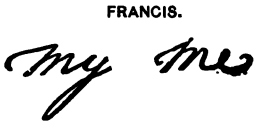
JUNIUS. FRANCIS.

JUNIUS. FRANCIS.

"It will be observed that roundness of form characterizes the upper turns, commencing the letter *m* and *n*, in the above examples. Those letters might have been joined to the words preceding them and still have preserved that character, and would do so in hands wherein roundness of form is habitual. This, however, was not so either with Junius or with Francis. Moreover, they were both prone to join words, commencing with *m* or *n*, to the words preceding them.

"Francis, on very rare occasions, commenced the small letter *m*, when disjoined from the preceding word, not only angularly, but in a very distinctive manner, as in the subjoined examples:—

FRANCIS.



"When Junius joined either a letter *m* or *n* to the word preceding it, he altered the character of those letters in a very marked manner by changing the round form into a very angular one. Francis also fell into the same habit, as is evinced in the following facsimiles:—

JUNIUS.

FRANCIS.

JUNIUS.

FRANCIS.

"Two instances of the letter *m* thus formed occur in the Junian hand, as in the words 'man' and 'money,' written in the essay sent to Mr. Grenville, as in the following facsimiles:—

JUNIUS. FRANCIS.

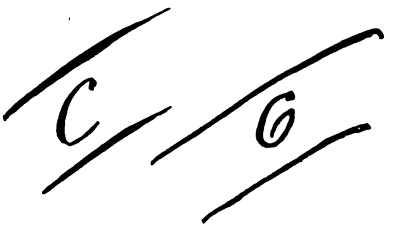
"Thus, three distinct formations of the letter *m* at the beginnings of words, distinguish alike the handwriting of both Junius and Francis."

We have selected the accompanying similarities out of many hundreds of a like kind, merely as examples of the mode of investigation adopted by Mr. Chabot in dealing with the formation of letters. We now proceed to mention some instances of habits common to Junius and Francis, which are not necessarily dependent on their mode of forming letters. Mr. Chabot enumerates ten such instances:—

"1. The mode of dating letters.

"2. The placing of a full-stop after the salutation.

"3. The mode of signing initials between two dashes.

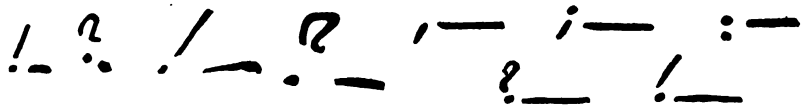


"4. Writing in paragraphs.

"5. Separating paragraphs by dashes placed between them at their commencement.

"6. Invariable attention to punctuation.

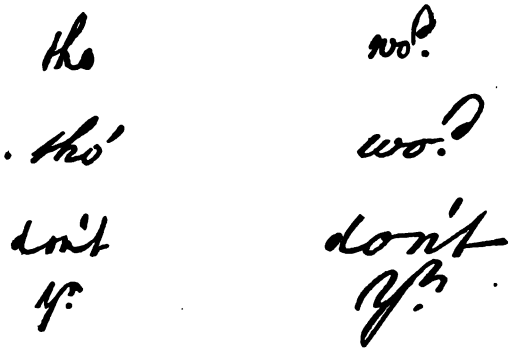
JUNIUS. FRANCIS.



"7. The enlargement of the first letters of words.

"8. The insertion of omitted letters in the line of writing, and not above it, and the various modes of correcting miswriting.

"9. Mode of abbreviating words, and abbreviating the same words.



"10. Misspelling certain specified words."

Of these several points of agreement in habits between the handwriting of Junius and Francis, the first is the most striking and deserves special study. The datings of the letters of Junius are characterized by the following nine points: —

"1. The placing the note of place and time at the top of the letter, and not at the foot or close of it.

"2. The writing the whole in one line only.

"3. The writing the name of place.

"4. Placing the day of the month before the month, and not after it.

"5. Placing a stop after the name of place.

"6. Placing a stop after the day of the month.

"7. Placing a stop after the name of the month.

"8. Placing a stop after the figures of the year.

"9. Writing at full length such a month as 'January,' 'February,' or 'October.'

The following facsimile, taken from Junius's third letter to Mr. Grenville, illustrates the fourth and ninth points:—

JUNIUS.

London. 1h 20. October. 1769.

FRANCIS.

21 January 1769 30. July. 1769.

29. July. 1769. 5. July. 1769

sented by Chabot in his analysis, but sufficient to illustrate his method and vindicate his conclusion that the two writings are one.

Mr. Twisleton closes his review of Chabot's report with the following very pertinent comments:—

"It sometimes happens that it is impossible to detect the author of anonymous letters or of a forged signature, except by a comparison of handwritings. A bad and base man may successfully have taken such precautions that no human eye saw his hand while it was penning a particular document, and that no external evidence is in existence to trace that document into his possession. In such a case, everything in a trial may depend on the special knowledge which is brought to bear on the internal evidence of the document itself by the advocates, the jury, and the judge. From ignorance of the subject an advocate sometimes does not ask the proper questions of an expert whose evidence is favorable to his cause. From similar ignorance an advocate on the other side is frequently driven into the subterfuge of declaiming against experts, when, if he had a little knowledge of the subject, he might weaken the force of adverse evidence by two or three reasonable objections. And if in a trial either the judge or a single prejudiced juryman held the opinion that no certainty could be arrived at by comparison of handwritings, or that in such comparison it was a better test to look to general character than to individual letters, there might easily be an absolute miscarriage of justice. If accused of writing malicious and libelous anonymous letters, a guilty man might escape, or an innocent man might be condemned. When important interests were at stake a genuine will might be rejected while one that was forged might be accepted."

Note by editor of London *Quarterly Review:* "The following observations of Mr. Twisleton on the subject of 'experts' deserve to be remembered in the present investigation: 'The word "expert" is often used very loosely. It is frequently used to designate lithographers, or gentlemen connected with banks, who come forward as witnesses once or twice in their lives to express their belief that a particular document was or was not written by a certain individual. The word has, then, a meaning very different from that of general experts in handwriting, recognized as such in courts of justice, like Mr. Chabot and Mr. Netherclift, to whom cases of disputed writing are systematically submitted, from time to time, for their professional opinion, and who are prepared to state detailed reasons for every such opinion which they give. Having taken some pains to ascertain this point, I have been assured that during the last fifty years the number of such experts in London has been very few, and that there are only two such experts in London practice now. Hence, tales about experts should be received with distrust, unless names and particulars are mentioned, so that it may be ascertained in what sense the word "expert" is used.'"

CHAPTER XX.

QUALIFYING AN EXPERT WITNESS—USE OF PHOTOGRAPHS AND BLACKBOARD.

PRELIMINARY PREPARATION.—The expert should be given ample time in which to make his preliminary examination and report. Attorneys frequently wait until the time of a trial before calling an expert, and then often find that he has a conflicting engagement, or that the time for a scientific examination is not sufficient. Generally, it is better to have the report in writing, with reasons for conclusions. A conference should be held with the expert, at which each point should be discussed. In this way the attorney will learn the strong points to be brought out, the reasons for them, how best to present them, the expert's qualifications, and what is needed in the way of photographs and materials to properly illustrate to the court and jury.

PHOTOGRAPHS.—If the case is to go before a jury, by all means have photographs of the disputed and standard writings, both natural size and enlarged. If signatures are to be compared, enlarged copies should be made. A photograph, natural size, should be placed in the hands of each of the jury (or at least one for every two jurymen), besides which there should be one for the court, one for each attorney, and one for the witness. If enlarged photographs are used, only one set is needed. These can be mounted on cardboard or on a drawing-board and easel. The enlargements should be of a size sufficient for court, jury, and attorneys clearly to see the writing in detail from their seats.

In arranging the originals to be photographed, the disputed and the known writings should be juxtaposed, so as to render comparison easy. The photographs should be proven to be accurate copies of the originals by the photographer who made them. While it is entirely within the discretion of the court whether or not photographs may be admitted, as aids to comparison, their admission is now the rule; and they are almost invariably allowed when not offered in evidence, but for the purpose of illustrating the reasons presented by the expert. The originals only can be accepted as evidence.

EASEL OR BLACKBOARD.—The expert should be provided with a blackboard, or a large drawing-board mounted on an easel. The latter is preferable, as then large sheets of paper may be used, upon which illustrations can be drawn with black crayon, and these may be preserved as exhibits, if necessary. Thus striking points of similarity or dissimilarity between the standard and disputed writings may be effectively presented to court and jury. Occasionally the opposing counsel may object to the use of such means of illustration, but our higher courts have ruled in numerous instances that it is perfectly proper.

QUALIFYING AN EXPERT WITNESS.—At the best, the qualifying of an expert on the witness-stand will seem largely egotistical on the part of the witness, and the attorneys on his side should make it as delicate as possible. It saves time, trouble, and possible loss of the verdict if the expert be fully qualified before being permitted to testify. While he may be never so lucid in giving reasons for his conclusions, there is a chance of one or more of the jury not being able to comprehend the more or less subtle points in his explanation, and as a consequence they may have to take his testimony on faith. This faith may be strengthened if the witness is qualified fully before proceeding to testify, and if it is shown that he is a man who, by nature,

training, and experience, is qualified in every way to give a well-grounded opinion.

Questions bringing out the following points should be asked —

1. Age.
2. Occupation.
3. How long an expert; how many cases, and in what courts.
4. What preliminary training (and preparation for present occupation) before engaging in the present calling.
5. Whether author, lecturer, publisher, member of any organization, etc.
6. Any other questions tending to show education, experience, and standing as an expert.

ADMISSION OF STANDARDS.— Known writings, termed either "standards" or "exemplars," should be selected with great care. The greater the number and the nearer the date and character of the disputed writing, the better. Signatures to legal papers, deeds, mortgages, wills, leases, etc., as well as notes, receipts, and checks, are best. Courts are exceedingly careful, and rightly so, about the writings admitted as "standards."

An expert should not be asked to use as a standard a single signature or piece of writing where more can be obtained, because some of the characteristics of the writing in question may be lacking from any particular piece, or it may embody other accidental peculiarities foreign to the habit of the writer. In the absence of proper material for comparison, an expert should decline to give his opinion or testimony. A large number of specimens will show the general handwriting of the individual, and preclude the probability of a mistake being made in passing judgment, which might occur were the examination confined to a single brief specimen, which might not properly represent the range of the person's writing habit.

If the disputed writing is in lead-pencil, by all means secure some lead-pencil standards, if possible; also some ink standards. But do not use lead-pencil standards (unless compelled to by necessity) for comparison with disputed ink writings, as it is obvious that writing with a pencil can not contain all the characteristics of pen-and-ink writing. Especially is this true of shading, which is an important factor in the comparison of writing.

DIRECT EXAMINATION.—After exhibits are marked for identification, or have been admitted in evidence, hand the disputed document to the witness and say:—

"I hand you 'Exhibit No. 1,' and ask when and where you saw it first."

"I hand you 'Exhibits A,' 'B,' 'C,' etc., [standards], and ask you if you have seen those before."

"Have you examined and compared the handwriting in the two sets of exhibits [naming them]?"

"Have you reached a conclusion whether or not they were written by the same hand?"

"What is that conclusion?"

"Give to the court and jury, *in your own way*, your reasons for this conclusion."

RE-DIRECT EXAMINATION.—During cross-examination it will be necessary for the attorney to follow closely the questions of the opposing counsel and the answers of the witness. By skillful questioning and compelling the witness to give strictly responsive answers, the opposing attorney may seem to make the witness contradict his direct testimony. The watchful attorney should make a note of these points, and when he sees the witness struggling to give an answer that will tell "the whole truth and nothing but the truth," but by calls for "responsive" and "yes" or "no" answers, is compelled to say the opposite or only part of what he wants to say, the attorney should see that

the witness, on re-direct examination, has an opportunity to finish his answer and say fully what he sought to say when under cross-examination. For example: On direct examination the witness may have pointed out the resemblance in the case of a certain capital letter — the height, shade, proportions, openings, angles, turns, etc. The opposing counsel may pick out the same letter in some other handwriting that has one or more points in common with the disputed writing; or he may take still another capital letter in still another handwriting, and in that point out characteristics common to the standard and disputed writings. In this way, what may appear to the jury to be coincident in the handwritings are not in reality characteristics but mere resemblances, perhaps only the accidents of several different handwritings — no two of them coincident in any two hands. The watchful attorney should make this plain to the jury by his re-direct examination.

CHAPTER XXI.

KINDS OF INKS — THEIR COMPOSITION — COPYING - INK — SAFETY INK — COLORED INKS — TESTS OF INKS, FOR THE PURPOSE OF DETERMINING THEIR IDENTITY — INK ERASURES BY CHEMICALS AND THEIR RESTORATION — EVIDENCE AS TO THE RELATIVE AGES OF INK UPON DOCUMENTS — JUDGING OF THE COLORS OF INKS.*

FREQUENTLY the inks used in the writing on a document will be of great assistance in determining its genuineness or spuriousness. If interlineations, alterations, or additions have been made, it is practicable for the expert to tell whether or not the entire document was written with the same ink, and approximately the ages of the different inks used.

Several important cases have been decided by experts proving that certain constituents of the inks used on questioned documents were not on the market, and consequently not used in the manufacture of ink at the time the inks in question were purported to have been applied to the paper. The Gordon will case, in Jersey City, New Jersey, in 1891, was practically determined by the demonstration by experts that eosin — a product unknown at the time the interlineation in the will was said to have been made (1867) — was used to produce the red ink with which some important interlineations had been made.

* We are indebted to Prof. W. J. Kinsley, a skilled handwriting, ink and paper expert, for several years associated with the writer at No. 202 Broadway, New York City, for the preparation of the chapters on inks and paper.

KINDS OF INKS.

IRON AND TANNIN.— Black or blue-black writing-inks in which tannic acids and ferric oxide (a salt of iron) are the principal constituents are the inks with which the expert will oftenest have to deal. Tannin is extracted from nut-galls (Aleppo or Chinese being the best), oak bark, sumach, or valonia, and can be obtained from practically all vegetable substances. Most of the inks on the market in which tannin is used are made by macerating nut-galls. After maceration and fermentation of the nut-gall product, it becomes what is known as gallic acid. Pyrogallic acid, catechutannic acid, kinotannic acid, and morintannic acid are names given to tannic extracts from various plants.

The various tannins when combined with iron salts produce the following colors: Gallic acid and ferric salts, dark blue; gallotannic acid and ferric salts, black-blue; catechutannic acid and ferric salts, dirty green; pyrogallic acid with ferrous salts, black-blue; kinotannic acid with ferric salts, black-green; morintannic acid with ferric salts, dark green.

Ferrous salts are converted into ferric salts when exposed to air. Ink that has been made for some time always has some ferric salts in it.

The most frequently used iron salt of commerce is ferrous sulphate, commonly known as iron vitriol, green vitriol, or copperas. It is made by pouring dilute sulphuric acid over iron-filings, scraps, etc. The liquid is filtered, and is usually mixed with an equal quantity of spirit of wine. The two liquids produce a delicate pale-green powder, which is precipitated. This last product is the pure ferrous sulphate.

Ferric sulphate is made by adding some nitric acid to a solution of ferrous sulphate and heating to the boiling-point.

In addition to the tannin and iron, some inspissating

agent, such as gum or dextrin, is used. Preservative matter, frequently a small quantity of carbolic acid, is used in addition.

LOGWOOD INKS.—The red heart-wood of the logwood-tree (*Hæmatoxylon Campechianum*), cut from trees about ten years old, is the logwood of commerce. By boiling it in water it gives a liquid which is dark red in color. Dilute acids, when added to the dark-red liquid, change it to crimson color. When the crimson fluid is combined with iron salts a dark blue-black color is the result.

Logwood inks are usually a combination of nut-galls, ferrous sulphate, and gum, as well as logwood extract, and, of course, water. Occasionally vinegar is added, and sometimes chromate of potassium.

ALIZARIN INKS.—Alizarin is the red coloring matter obtained from madder-root. Practically all the alizarin on the market is produced by artificial processes. Few or none of the so-called alizarin inks contain any alizarin whatever. The inks on the market under the name of alizarin are made of ferrous tannate in a dissolved state with acetic or sulphuric acid. The coloring matter being in solution (no sediment forming), and possessing great fluidity, these inks are popular for rapid writing. The alizarin inks are too pale when first put on the paper, and indigo-carmine or aniline colors are added to strengthen the color.

COPYING-INKS.—Any substance which possesses the property of absorbing moisture from the air when added to ordinary inks changes them into copying-inks. Dextrin, glucose, glycerin, and sugar are some of the substances used.

COPYING-INK AND TEST.—Any common writing-ink can be changed to a copying-ink by adding a small quantity of

sugar, gum arabic, or glucose. The ready test for a copying-ink is the application of dampened paper under the simple pressure of the thumb, or even a bit of tissue paper touched to the tongue and then pressed under the thumb against the ink-lines which it is desired to test.

ANILINE INKS.— Water-soluble aniline colors are used to make many of the cheaper inks on the market. While producing brilliant colors at the first, they are not permanent, and are dangerous to use on this account. But a small quantity of the coloring is required, as it is strong; alcohol, water, and gum arabic are the other constituents. If glycerin is added, it will become copying-ink.

SAFETY INKS.—So-called safety and bankers' inks are made from carbon or vanadium. Carbon inks are unaffected by acids, but may easily be removed from paper by carefully washing with water.

Printing-inks (which are made from carbon or lampblack) contain varnish, and this penetrates the paper and carries the carbon with it. Printing-inks cannot be removed by washing, but owing to their thickness (being pasty), they cannot be used for writing.

Vanadium ink is made from filtered nut-galls and ammonium vanadate.

Shellac, borax, soluble Berlin (or Prussian) blue, resin, soda, water-glass, etc., are also used in the manufacture of safety inks.

COLORED INKS.— The discovery of aniline has made it possible to produce inks of practically any color. Aniline inks are fugitive and unsafe to use where permanency is desired.

Red ink is the kind most frequently met with by the expert. Brazil-wood and cochineal have been longest used to make red ink, but the chemical preparation fuchsine, or

aniline red, is now largely used in the cheaper inks. Brazilwood and cochineal inks are made by adding hydrated chloride of tin, alum, tartaric acid, ammonia, gum, etc., to the main ingredients.

Aniline inks are made by dissolving the coloring matter in water and adding gum arabic.

Indigo-carmine and insoluble Prussian blue, are used in making blue inks.

ANILINE AND COLORED PENCILS.—Aniline, kaolin, and graphite, when properly mixed, produce pencils that make marks which cannot be removed with the ordinary (rubber) pencil eraser. When wet, the marks made by such pencils assume the appearance of ink-lines and will give a copy also.

Nigrosine for black, methyl-violet or water-soluble blue for violet and blue, fuchsine for red, are the principal colors used.

SYMPATHETIC INKS.—It is seldom that sympathetic inks play any part in the expert's examination. Inks that disappear, appear, or change color are called sympathetic inks. To understand these inks it is necessary to know the constituents of the inks and to know the proper reagent to use to produce the desired result. A saturated solution of oxalic acid heated to boiling, with molybdic acid added until no more will dissolve, will produce a black sympathetic ink. This ink should be kept in a black bottle. Exposure to sunlight turns writing executed with this ink dark blue, and it becomes black when heated.

STAMPING-INKS.—Gum arabic, glycerin, and water, with the addition of coloring matter, form stamping-inks. Eosin for red, nigrosin for black, methyl-violet for violet, are some of the substances used. Pyroligneous acid, alcohol, and sugar are also used in addition to coloring matter to produce stamping-inks.

TYPEWRITER INKS.—Typewriter inks are frequently questioned, and it becomes necessary for the examiner to know something of them. Well-ground permanent color, vaseline, glycerin, wax, benzine, and turpentine are the constituents. This ink is applied to the ribbon by means of brushes. Aniline colors are extensively used in the manufacture of copying-ribbons, and carbon is most used for best record ribbon inks.

RULING-INKS. – Berlin blue dissolved in yellow prussiate of potash, gum-water, and warm water will produce a blue ink for faint ruling.

INK TESTS.—The decision in many important cases has hinged on the ink; whether two or more pieces of writing were made with one or more inks. It is also important at times to know what were the main constituents used in certain inks, as, for example, iron, nut-galls, logwood, nigrosin, vanadium, etc. Visual and microscopical examinations of disputed writings often arouse suspicion that a chemical test alone will settle. If a document purports to be all written with one and the same ink, and it can be clearly shown by chemical tests that one ink is iron and the other logwood, nigrosin, or some different ink, the importance of such a demonstration can be seen at once.

(The table printed herewith is from the *Journal of the Society of Chemical Industry*, October 31, 1892. It originally appeared in the *Pharmaceutische Central-Halle, Neue Folge*, No. 13, 1892, page 225, by A. Robertson and J. Hofman. It is a valuable list of tests, and will furnish a guide as to reagents to use in reactions on the principal inks of commerce.)

DETERMINING AGE OF INK.—To determine the exact age of writings by the ink used is impossible. The approximate age may be determined with some degree of

TESTS FOR INKS.

Draw a moistened quill, or gold pen, over the ink mark, and observe with a magnifying-glass.

REAGENTS.	INKS.					
	IRON TANNATE. "NUTGALL."	LOGWOOD WITH K_2CrO_4.	LOGWOOD WITH $Cu.SO_4$.	NIGROSIN.	VANADIUM.	RESORCINOL.
Oxalic Acid, 3 per cent.	Disappears.	Violet.	Orange yellow.	Unaltered.	Bleached and runs slightly.	Bright red.
Citric or Tartaric Acid, 10 per cent.	Bleached.	Violet.	Orange yellow.	Runs and becomes dark blue.	Bleached and runs	Disappears.
Hydrochloric Acid, 10 per cent.	Disappears, leaving a yellow color.	Purple red.	Blood red.	Little altered.	Bleached slightly, runs slightly.	Bright rose.
Sulphuric Acid, 15 per cent.	Disappears.	Red.	Purple red.	Unaltered.	Bleached slightly.	Bright red.
Nitric Acid, 20 per cent.	Disappears.	Red.	Purple red.	Runs slightly.	Bleached slightly.	Bright rose.
Tin Chloride, 1 pt.; Hydrochloric Acid, 1 pt ; Water, 10 pts.	Disappears.	Red.	Magenta red.	Unaltered.	Bleached slightly.	Disappears.
Sodium Hyposulphite (sat. sol)	Bleached.	Gray violet.	Red.	Unaltered.	Bleached slightly and runs.	Bleached.
Gold Terchloride, 4 per cent.	Bleached slightly.	Red brown.	Brown.	Unaltered.	Unaltered.	Becomes brown and runs.
Am. Hy. Sodium, 1 pt.; Aq. Ammonia, 1 pt ; Water, 10 pts	Dark red.	Unaltered.	Dark blue.	Becomes dark violet and runs.	Runs freely.	Brown.
Ferro-cyanide Potass., 1 pt.; Hydrochloric Acid, 1 pt.; Water, 10 pts.	Blue.	Red.	Brick red.	Unaltered.	Unaltered.	Rose.
Sodium Hydrate, 4 per cent.	Dark red.	Brown.	Becomes dark red and runs.	Becomes dark violet and runs.	Becomes dirty brown and runs	Unaltered.
Chlorinated Lime, 2 per cent.	Disappears.	Disappears.	Disappears, leaving yellow color.	Brown.	Unaltered.	Brown.

certainty. If ink-writings are but a few days old, it is easy to distinguish them from other writings years old. But to tell by the ink which of two writings is the older, when one is but two months and the other two years, is, as a rule, impossible.

Where during the progress of a trial a document purporting to be years old is introduced in evidence, and it can be shown that it is but a few days old, having been prepared for the occasion, ordinarily the age of the writing will be comparatively easy of demonstration by the expert. Oxidization will not have set in to any extent, if the ink is very fresh, and this, with a careful watching of the color for any darkening, will determine whether or not the ink is fresh.

AMMONIA TEST.—A ten-per-cent. solution of ammonia applied to two inks in question will show which is the fresher. The older ink will resist the action of the ammonia longer and give up less soluble matter than the newer writing. Nut-gall, and logwood inks, of course, should not be tested comparatively by this method, as the logwood ink will respond to the ammonia sooner than the nut-gall ink.

CARRE'S METHOD.—F. Carre gives a method for determining, approximately, the age of ink-writings. If the writing is in iron ink, and is moistened with a solution of one part of hydrochloric acid to eleven parts of water and put in letter-copying press and copy transferred to copy-paper it should give a strong copy, if but ten years old; a hardly legible copy, if thirty years old; and if sixty years old, a few marks will be copied, but they will not be legible.

If the same solution be used in place of water, as in the ordinary letter-copying process, and the copying paper be saturated with it, the result will be the same.

To determine the age of writing by applying bleaching

acids and watching results and counting the seconds, is a dangerous method. Thick inks will respond to the acids slower than thin, and the time comparisons are misleading.

TO DETERMINE WHETHER OR NOT PAPERS CONTAIN ERASURES.

IF SCRATCHED.—The suspected document should be examined by reflected and transmitted light. Examine the surface for rough spots. Forgers after erasures frequently endeavor to hide the scratched and roughened surface by applying a sizing of alum, sandarach powder, etc., rubbing it to restore the finish to the paper.

WATER.—Distilled water applied to the suspected document at the particular points under examination will dissolve the sizing applied by the forger. If held to the light the thinning will show. The water may be applied with a small brush or a medicine-dropper. Water slightly warmed may be used with good results at times.

ALCOHOL.—Alcohol, if applied as described for water, will act more promptly and show the scratched places. It may be well to use water first and then alcohol.

CHEMICAL ERASURES.—To discover whether or not acids were used to erase, if moistened litmus-paper be applied to the writing, the litmus-paper will become slightly red if there is any acid remaining on the suspected document. If the suspected spots be treated with distilled water, or alcohol, as already described, the doctored places will show, when examined in strong light.

RESTORING PARTIALLY OBLITERATED AND FADED INK.

OLD WRITINGS.—The writing on old and faded documents may be restored (if the ink used had an iron base)

by chemical treatment, turning the iron salt still remaining into ferrous sulphate. A process which will restore the writing temporarily (for three or four days) is as follows: A box (wood or pasteboard) four or five inches deep and long and broad enough to hold the document, with a glass, is needed. A net of fine white silk or cotton threads is stretched across the box at about one-half the depth. Two saucers containing yellow ammonium hydrosulphide are placed in the bottom of the box. By means of a clean sponge or brush, moisten (not soak) the paper with distilled water; then place it on the net with the writing-side down. The action of the vapor of the ammonium hydrosulphide will cause the obliterated writing to slowly turn brown, then black. But within a short time after removal from the box the writing will again disappear.

OTHER METHODS.—Wash the document carefully in a solution of hydrochloric acid, one part, and distilled water, one hundred parts. Dry the moistened paper somewhat, leaving it just enough to hold a uniform layer of fine yellow prussiate of potash. A plate of glass with a light pressure should be placed on this. In a few hours dry the paper thoroughly, and carefully brush off the yellow prussiate of potash. The writing should come out a Prussian blue. This restored writing will be permanent unless exposed too much to the light.

The hydrochloric acid must be thoroughly removed; otherwise, it will destroy the paper. Crystallized soda, two parts, and distilled water, one hundred parts, in solution, will counteract the hydrochloric acid, if the document is allowed to float on it for twenty-four hours.

The following treatment will usually restore chemically erased or partially obliterated writing, if enough of the base of the ink be left in the paper for reagents to attack: The part of the document which has been erased must first be moistened with a solution composed of ammonia, one

part, distilled water, one part, and alcohol, two parts. After the paper dries from this application, paint over the same spot with the ferro-cyanide of potassium. If any iron is left in the fiber of the paper, this will bring out a strong Prussian blue.

DECIPHERING PENCIL ERASURES.

It is often desirable to decipher pencil-writing which has been removed, or partially so, by rubbing. This is often accomplished through the proper study of the indented lines, which will remain more or less in the paper after the graphite or plumbago has all been removed. By examining the furrows under a strong side or horizontal light, their shadows will sometimes reveal the outlines of the former writing. Frequently a greatly enlarged photograph will aid in the deciphering.

JUDGING OF INKS.

Nothing is more difficult than to judge of the color of ink by its visual appearance. Ink used from the same bottle may be made to present a widely varying appearance. It will vary according to the time of exposure to the atmosphere, the degree of evaporation, and the accumulation of dust, which loads it down with coloring matter. It will also vary if a new or an old, a fine or a coarse pen is used, or if the writing is shaded or unshaded.

Although it may from these causes present a different general effect to the untrained and unaided eye, yet with the help of a microscope, a skilled examiner will reach a very reliable conclusion respecting the sameness of inks. But, after all, a chemical test is the only absolute demonstration.

To make the usual chemical tests does not necessarily involve any technical knowledge of chemistry. When the question arises as to whether or not two writings are made

with the same ink, an acid test (oxalic acid or muriate of tin) is applied. Ink which contains a gallate of iron will turn green; that containing logwood will turn red; that having aniline will turn a purplish green. Carbon inks will remain unchanged, while inks of different manufacture may be so nearly from the same formula as to respond approximately to the test. However, where the response to one ink is red and to the other green, the result is proof absolute.

CHAPTER XXII.

PAPER — MATERIALS USED AND METHODS OF MANUFACTURE — WATER-MARKS, ERASURES, ETC.

It is seldom that the expert is called upon to examine writing on any other material than paper. Very infrequently the questioned writing may be on parchment. It would take several pages of a book like this to print simply the names of the materials from which paper is manufactured. The best writing-papers are made of linen and cotton rags. Inferior writing-papers have wood, esparto, straw, corn-stalks, and old paper in them. The writing-paper most commonly met with is that made from (1) pure linen rags, (2) linen and cotton rags, or (3) rags and wood-pulp. Of course, there are other ingredients used in the manufacture of paper.

In order to be able to judge of paper, it will be necessary to understand something of its manufacture. When rags are received at the mill, they are assorted, and cut into small pieces (usually by hand, drawing the pieces across a scythe-like blade); then they are dusted and boiled, to get out the dirt. In the production of "half-stuff," or bleached pulp, the rags are put into a washing-engine, consisting of a vat containing a cylinder with rapidly revolving arms to which knives are fastened. From this machine the cleaned and pulp-like mass is transferred to the beating-engine. Chlorine is added to the pulp, to aid in bleaching, and often hyposulphite of sodium is also added to neutralize the effect of the chlorine. In engine-sized papers

(the cheaper grades) loading, consisting of clay, kaolin, etc., is added after the washing is finished; then the sizing is put into the vat, and to this is added the alum and coloring matter.

Engine-sized papers have a preparation of resin soap treated with alum mixed with the pulp in the beating-engine. A small quantity of starch is also added to unite the fibers of the paper and render it less spongy.

Animal-sized papers are of the higher grades, and are best adapted for writing purposes. Hide and skin trimmings, animal hoofs, eel-skins, etc., furnish the material from which animal sizing is made. Alum is added to the jelly obtained from the steeping and boiling of these ingredients. To this mixture finely powdered lime is added, and the whole is then heated to seventy-seven degrees Fahrenheit.

From the beating-engine the pulp, now white and looking "good enough to eat," is drained and pressed, to remove the water, etc. It is then carried to the stuff-chest; and from there is run into a thin and wide sheet upon an endless metallic (wire) cloth. This cloth, with the pulp, moves on through various cylinders, some of them covered with felt. The heated cylinders and pressing-rolls squeeze out the water and dry the pulp. The paper then passes between cylinder cutters which trim the edges and slit it into any desired widths. It is then cut into sheets. These sheets are placed on poles in a heated loft and left for some time to thoroughly dry. This is known as "loft-dried" paper, and of course only applies to the better and higher-priced grades.

Some papers are "double-sized,"—that is, both engine and animal-sized.

The hard-finished surface is imparted by calendering,—that is, running the paper between polished (and sometimes heated) cylinders, or by placing the sheets of paper between metal plates and running them through the cylin-

ders. The latter method is quite common in Europe, but is little used in the United States. Gypsum and plaster of paris, etc., are used to produce a high and hard-calendered surface.

WATER-MARK.—The water-mark in paper is made by the "dandy-roll" while the pulp is in a condition to receive and retain an impression. The dandy-roll is made of wire, with the lettering or design raised, and the whole is mounted in cylinder form. As the thin sheet of pulp passes along on the drying-machine, the dandy-roll revolves with it, and at regular intervals impresses the water-mark upon the half-dried continuous sheet. This impression causes a thinning of the paper at that point, and when it is held between the eye and the light the water-mark is plainly seen. The water-mark identifies the paper with the manufacturer, and frequently the age of the paper itself can be determined from it. If it can be shown that the sheet of paper on which a purported thirty-year-old document is written is but ten years old, its use to the expert is obvious.

IRON IN WATER USED.—The water used in paper-making may contain iron, and when a document is tested for iron the iron in the paper may deceive the expert. Adulterants and chemicals may introduce small quantities of iron into the pulp with the same results.

ERASURES BY SCRATCHING.—By holding the sheet of paper between the eye and the light, any thin places will appear, and if erasures by scratching have been made, the smooth-calendered surface of the paper, together with the animal sizing, will be disturbed. The fibers will also exhibit a torn-up appearance, especially if a strong microscope is used in making the examination.

A blurred appearance of the ink-lines will appear whenever an attempt has been made to write over an erasure of this kind. Sometimes attempts are made to resize papers

over erasures. If this is suspected, Tarry recommends moistening the spot with alcohol. If paste and resin both have been used in the resizing, it will be necessary to apply lukewarm water first, then alcohol. After the paste and resin have been removed, the ink spreads or blurs. The water and alcohol applied to another ink-line in the same document where there has been no erasure will serve to show the contrast.

CHAPTER XXIII.

DIVINATION OF CHARACTER FROM HANDWRITING — SOME REMARKABLE INSTANCES QUOTED.

SOME of our readers may have come across a picturesque individual very much in evidence at country fairs, usually ornamented with a scarlet robe and immaculate turban, who impressed upon the assembled multitude with brave insistence his extraordinary powers of reading character and establishing personal identity by means of handwriting. The writer remembers to have seen such a one, who announced with great vigor that if the ladies and gentlemen gathered together would be so kind as to copy a certain formula and submit the slips while he retired to a neighboring tent to commune with Mahatma, or some one else, he would undertake, for the modest consideration of twenty-five cents a head, not only to tell the age and the sex of each writer, but to describe his or her station in life, whether married or single, and also to select from the whole body of writers the particular author of each line. The wonderful part of it was the accuracy and approximate truth of the readings and the exceedingly small number of errors in identifying a particular writer. As to how much of this was really based on the handwriting and how much was shrewd guesswork and conclusions arrived at from the appearance, conversation, etc., of the individual writers, is of course a matter of surmise. Equally, of course, those who claim to be able to do all these things and more (some even claim to tell the color of hair and eyes and to make a very minute analysis of mental, moral, and physical characteristics) sub-

ject themselves to a very fair suspicion of charlatanism. Yet no one who has investigated the subject will be disposed to question the fact that a man's handwriting normally takes on the color of his mental and muscular attributes to a degree sufficient to serve a useful purpose as an index on broad lines, and from which may be divined very much respecting his character.*

Graphology, or the reading of character from handwriting, has had many enthusiastic votaries, some of whom have attained to a marvelous degree of skill in their delineations of character and other personal distinctions from handwriting, rarely, if ever, failing to determine the sex or nationality of the writer, and approximating the age quite as closely as would be done from seeing the persons themselves. Take, for instance, a collection of signatures written by persons of different nationalities — American, English, German, French, etc. One who is familiar with the writing of such nationalities will distinguish between them with about as much certainty as he would between the groups of persons by whom they were written. (See cuts on pages 30–32.)

Persons having strong and conspicuous traits of character manifest them in handwriting. Says Archbishop Whately :—

"I had once a remarkable proof that handwriting is, sometimes, at least, an index to character. I had a pupil at Oxford whom I liked in most respects greatly. There was but one thing about him which seriously dissatisfied me and that, I often told him, was his handwriting. It was not bad, as writing, but it had a mean, shuffling character in it, which always inspired me with a feeling of suspicion. While he remained at Oxford I saw nothing to justify this suspicion, but a transaction in which he afterwards engaged, and in which I saw more of his character than I had before, convinced me that the writing had spoken truly."

* Personality in handwriting is made the subject of another chapter, to which the reader is referred.

Another writer mentions this incident:—

"A curious case was one in which a celebrated graphologist was able to judge of character more correctly by handwriting than he had been able to do by personal observation. He was on a visit to a friend's house, where among other guests he met a lady whose conversation and manners greatly impressed him, and for whom he conceived a strong friendship, based on the esteem he felt for her as a singularly truthful, pure-minded, and single-hearted woman. The lady of the house, who knew her character to be the very reverse of what she seemed, was curious to know whether Mr. —— would be able to discover this by her handwriting. Accordingly, she procured a slip of this lady's writing (having ascertained he had never seen it) and gave it to him one evening as the handwriting of a friend of hers whose character she wished him to decipher. His usual habit, when he undertook to exercise this power, was to take a slip of a letter, cut down lengthwise so as not to show any sentences, to his room at night, and to bring it down the next morning with his judgment of the writing. On this occasion, when the party was seated at the breakfast-table, the lady whose writing he had unwittingly been examining made some observation which particularly struck Mr. —— as seeming to betoken a very noble and truthful character. He expressed his admiration for her sentiments very warmly, adding at the same time to the lady of the house, 'Not so, by-the-way, your friend,' and he put into her hand the slip of writing of her guest which she had given him the evening before, over which he had written the words, 'Fascinating, false, and hollow-hearted.' The lady of the house kept the secret, and Mr. —— never knew that the writing on which he pronounced so severe a judgment was that of the friend he so greatly admired."

Lavater, the great Swiss physiognomist, thus records his opinion:—

"Individual writing is inimitable. The more I compare the different handwritings which fall in my way, the more I am confirmed in the idea that they are so many expressions of so many emanations of character of the writer. Every country, every nation, every city has its peculiar handwriting."

We quote from another enthusiastic but not too extravagant believer in graphology:—

"There is no question about the fact that there have been persons

who attain the same ability of discovering, in a single specimen of handwriting, the character, the occupation, the habit, the temperament, the health, the age, the sex, the size, the nationality, the benevolence or penuriousness, the boldness or the timidity, the morality, the affection or the hypocrisy, and often the intention, of the writer. The skill of deciphering character from handwriting has been, in certain rare cases, cultivated to the extent that forgeries could be detected at a glance, and persons passing under assumed names exposed, from the manner in which they wrote their assumed names. A skillful analyzer of handwriting can point out where a writer is firm in his purpose and his nerves are well braced, or where his fears overcome resolution, where he pauses to recover his courage, where he changes his pen, and the various other contingencies incident to forgery.

"Persons have attained such proficiency in reading character from handwriting, that it is recorded of one who made this subject a study, that at a meeting of the directors of a bank, none of whom knew the gentleman, nor were known by him, it was arranged that he should meet them and exhibit his skill. The first experiment was this: Each director wrote on a piece of paper the names of all the board. Eleven lists were handed him, and he specified the writer of each by the manner in which he wrote his own name. He then asked them to write their own or any other names, with as much disguise as they pleased, and as many as pleased writing on the same paper, and in every instance he named the writer. Another experiment: The superscription of a letter was shown him. He began: 'A clergyman, who reads his sermons, and is a little short-sighted; aged sixty-one, six feet high, weighs one hundred and seventy pounds, lean, bony, obstinate, irritable—' 'Come, come,' said one of them, 'you are disclosing altogether too much of my father-in-law.'

"A forged note which had been discounted by the cashier was presented. He (the gentleman) analyzed the forged signature so vividly and truthfully, pointing out one of the members of the board of directors as the executor of the note, and he (the forger) fell to the floor as if dead. What seemed at the time an impossibility to the other members of the board, namely, that one who had stood so high in their estimation, and whose character had been unimpeached, should be guilty of such a crime. The 'graphtomancer's' assertion was pronounced impossible by all, and yet subsequent investigation, and the confession of the forger, proved him to have been correct.

"Such are a few of the alleged facts, corroborative of the claim that handwriting is an index of character. When the subject is fully investigated, it undoubtedly will appear that writing is not a mere chimerical

art, but that it is an outburst of the heart, an exponent of life and character, more reliable than the delineations of the countenance to the physiognomist."

Not long since the writer was present with a party of ladies and gentlemen where the reading of character from handwriting was the subject under discussion, when one of the ladies took from her pocket two letters, and handing them to him, asked an expression of his opinion respecting their authors. Inspecting one of them, he said, "The writer was upward of sixty years of age, a careful, methodical, experienced business man, and probably the head of some corporation or large business." Inspecting the writing of the other letter he said, "The writer of this is between thirty and forty years of age, a keen, active man of affairs, probably the secretary or chief clerk of a corporation or a large business house." The lady who had solicited the opinion at once clapped her hands, exclaiming that nothing could be more truthful, adding that the one was president of a savings and loan company and the other was secretary of a corporation. "Now," she said, "I would just like to have you explain to me how you could tell that."

The reply was, taking the first one: "Here is a strong, clear, legible, and practiced hand, very methodical, without blot, change, or erasure from beginning to end, and is written in a round-shaded hand, which must have been learned more than forty-five years ago, as that school of writing has not been taught in this country within that period. This, with the dignified, deliberate appearance of the writing fixes his age at over sixty years, while the practiced style of writing indicates a large experience in the business world. The good judgment, taste, and accuracy manifested in the writing show corresponding traits in business; while the concise, clear, and intelligent statement of the subject-matter is indicative of an able, clear, and comprehensive grasp of business affairs."

As to the other letter he said: "This is an elegant Spencerian hand, which must have been learned at a much more recent date, and hence by a younger man. It is written with great facility, indicating young and trained muscles in immediate practice, and the composition and subject-matter is such as to indicate a mind trained and familiar with the business world. Here, therefore, is a man not above medium life and possessed of the requisite qualifications for the active duties of the secretary or chief clerk of some large business enterprise."

CHAPTER XXIV.

DERMAL LINES OF THE THUMB AS A MEANS OF PERSONAL IDENTITY.

THOSE who have read the ingenious and fascinating story of "Pudd'nhead Wilson," by Mark Twain, or those who have witnessed its performance upon the stage, have doubtless speculated as to whether it could have any real foundation in fact, and, if so, whether it could be made in any

By the accompanying cut are presented facsimile impressions of the dermal furrows of the right and left thumbs of four different persons. Those of the right thumbs are below. Their difference is too radical to admit of even a detailed comparison.

way serviceable in the detection of crime, or in establishing a person's identity.

That it may be most effectively employed as an adjunct to the rogues' gallery for fixing the identity of criminals there can be no doubt, since, from various experiments performed by the writer, it has been demonstrated that impressions made from the dermal furrows of the thumb or finger of no two persons can be sufficiently identical, when inspected under a microscope, to be mistaken one for the other; and that it may, in some rare instances, be a powerful agency for the detection of criminals is highly probable.

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